

PRIVATE SPECIFICATION

Prepared for the



SOUTH AFRICAN AIRWAYS

A STAR ALLIANCE MEMBER 

LADIES GCC WHITE & BLUE SHORT SLEEVE TOP



Item Numbers: C028 & CL04
Document Number: SAA 2001
Version 03.0/April 2014

1. Scope

This specification¹ covers the material, design and make of three-quarter sleeved tops for female personnel of the South African Airways. The garment variations covered in this specification are as given in table 1:

Table 1 – Garment variations

Type			Description	Item Number
1.1	Blue	Ground staff	Short sleeve top, Ladies	C028
1.2	White	Cabin crew		CL04

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:

- ♦ round neck
- ♦ neckline to have a facing and stitched down
- ♦ plain front panels with bust darts
- ♦ short sleeves
- ♦ hems to be cover seamed
- ♦ shaped side seams with side slits
- ♦ back to have a centre back seam with a slide fastener at the top edge
- ♦ supplied in two colour variations

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

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4. Illustrations

Illustrations are not to scale and are for guidance only.

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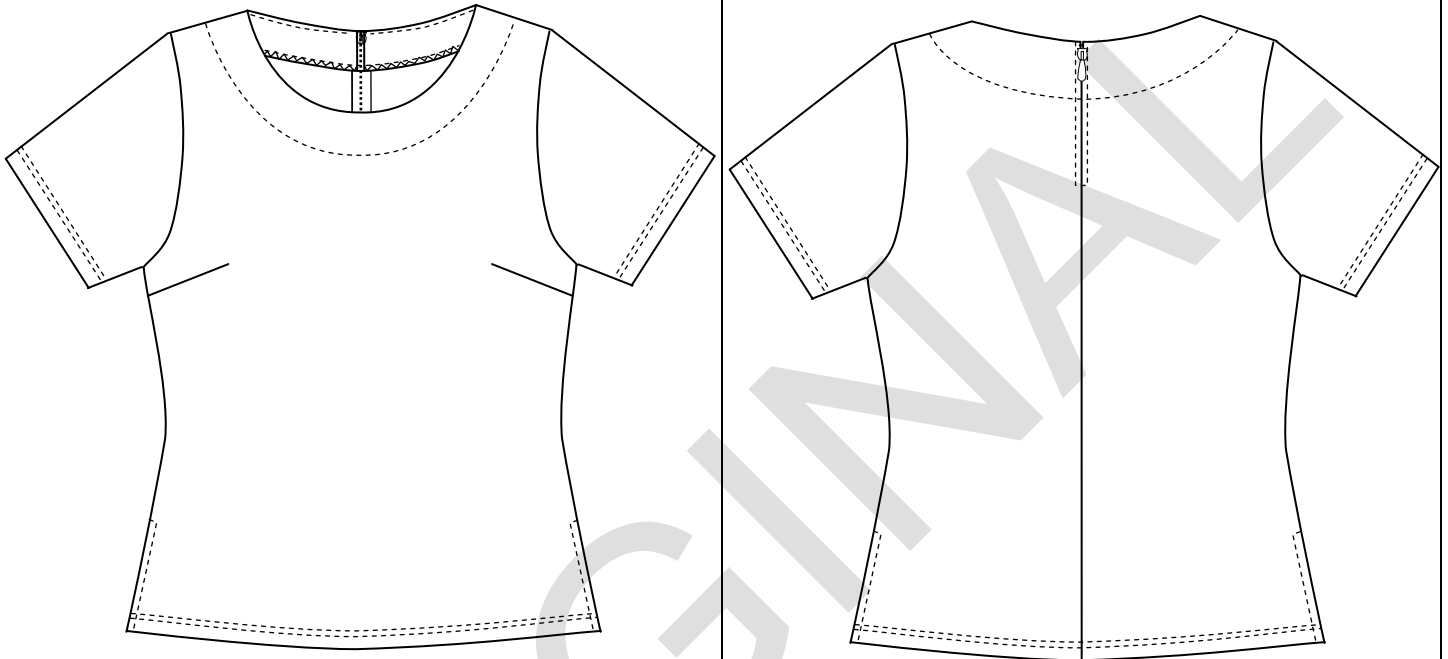


Figure 1 – Front and back

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.

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6.1 Outer material

- ♦ to comply with the requirements as given in table 2
- ♦ 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 one of the CKS 129 colours as given in table 3 (as specified in the order or contract)

Table 2 – Outer material

1	2	3
Property	Requirement	SANS number (unless otherwise indicated)
Fibre composition, %		1833-2 and 1833-11
Rayon	57 ± 3	
Polyester	41 ± 3	
Spandex	2 ± 3	
Nominal width, mm	96	82
Weave	Jacquard ^a	Visual examination
Mass per area, g/m², nominal	300	79
Seaming properties, as received.		ISO 13936-1
Resistance 6 seam opening, N, min.		
Parallel to warp	200	
Parallel to weft	200	
Strength at seams, N, min.		
Parallel to warp	200	
Parallel to weft	200	
Resistance to pilling ^b, rating, min.	4 (slight to moderate)	6116
Dimensional stability to washing, %, max.		ISO 5077/ISO 6330 ^c
Warp	1,0	
Weft	3,5	
Colour fastness to:		
Washing, rating min.		ISO 105-C06 ^d
Change in colour	4	
Staining of multifibre adjacent fabric	4	
Perspiration, rating, min.		105-E04
Change in colour	4	
Staining of adjacent fabrics	4	
Light, rating, min.	5-6	105-B02
^a Jacquard weave pattern to match the sample held by SAA. Design in Figure 2 to serve as guideline. ^b Determined on the fabric after washing in accordance with SANS 11108: procedure A, but at 40 °C. ^c Washcator washing machine, front-loading horizontal rotating drum type. Test programme 6A, 40 °C with 2 kg load in 0,08% ECE reference detergent and 0,02% sodium perborate solution followed by tumble dry with ironing. ^d Use procedure A2S. Single test, 30 minutes mechanical wash at 40 °C in 0,4% ECE reference detergent and 0,1% sodium perborate solution with 10 steel balls.		

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Table 3 – CKS 129 colours

Item description	CKS 129 Number	Title	Item Number
Ground staff	2625c-2014	SAA Royal Blue (Jacquard weave)	C028
Cabin crew	2624c-2014	SAA White (jacquard weave)	CL04

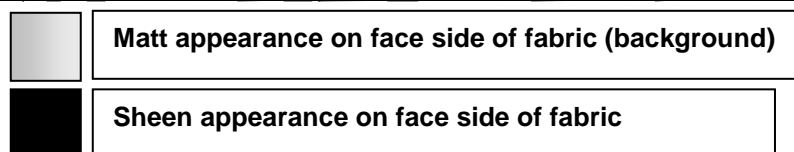
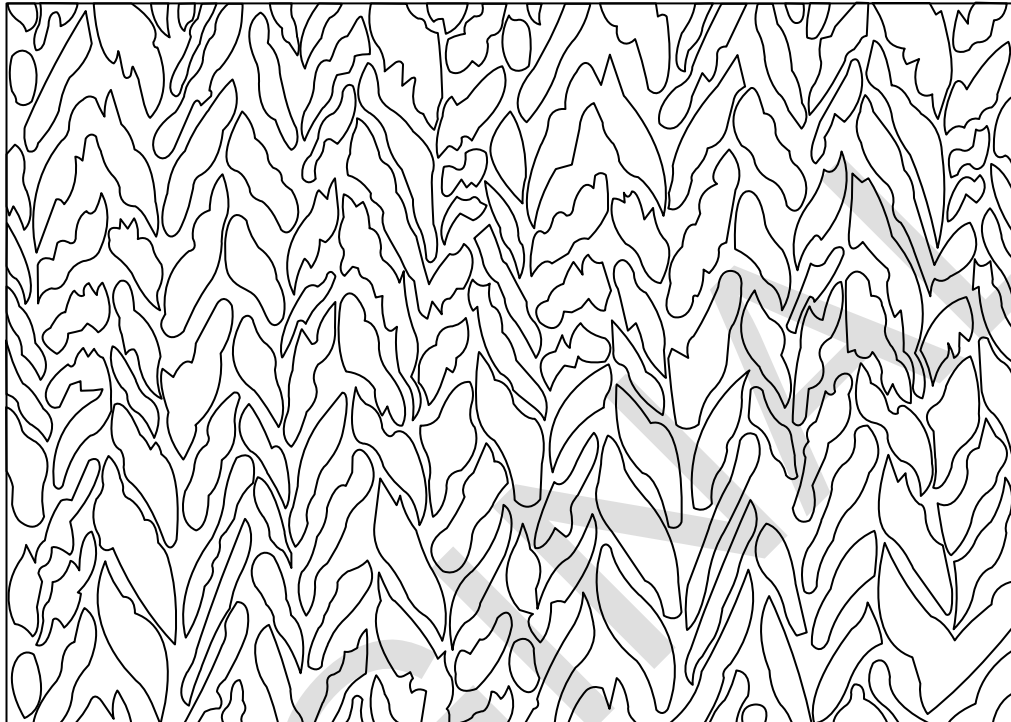


Figure 2 – Guideline on jacquard design

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6.2 Slide fasteners

- ♦ one-way closed-end
- ♦ synthetic spiral
- ♦ comply with relevant requirements of class A slide fasteners of SANS 1822 “Slide fasteners”
- ♦ colour to be an acceptable match to the colour of the outer material

NOTE: Attention is drawn to Annex A where it states that compliance certificates to the relevant standards shall be submitted together with the pre-production samples.

6.3 Interlining

- ♦ fusible knitted, woven or non-woven interlining
- ♦ to comply with the requirements of CKS 627 “Fusible interlinings”
- ♦ suitable for use in garments which may be washed
- ♦ capable of withstanding the same washing and drying procedures as specified for the outer material

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

6.4 Threads

- ♦ to comply with relevant requirements of SANS 1362 “Sewing threads”
- ♦ colour to be an acceptable match to the colour with which it is used

Sewing and top-stitching thread:

- ♦ polyester-and-cotton core-spun **OR** staple polyester **OR** spun polyester
- ♦ ticket No 80

Overlocking thread:

- ♦ crimp-textured polyester
- ♦ ticket No 120

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7. Workmanship

The tops 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

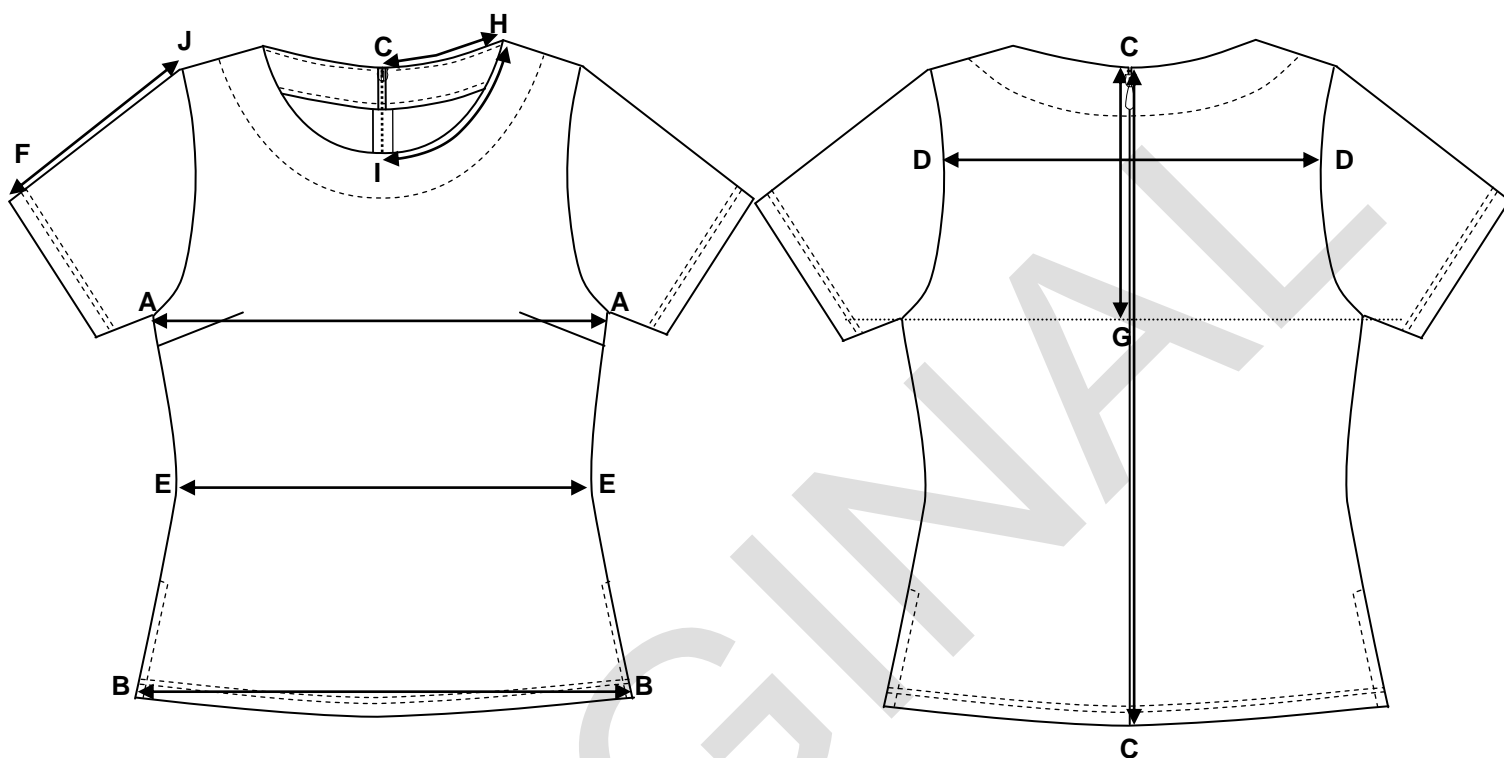
Ends of sewing shall be:

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

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8. Sizes

Top measurements:



MEASURING POINT		DESCRIPTION
A – A	Bust	Measure across the base of the scye, from one side seam to the other and multiply by two.
B – B	Hip circumference	Measure across the bottom hem, from the one side seam to the other, and multiply by two.
C – C	Centre back length	Measure the length at centre back from the top edge of the neck to the bottom edge of the top.
D – D	Back width	Measure along the width of the back, at the back pitch level (approximately 1/3 of the length of the back armhole, below the shoulder seam) from the one sleeve insertion seam to the other.
E – E	Waist circumference	Measure across the waist (narrowest part of the body) from one side seam to the other, and multiply by two.
F – G	Sleeve length	Measure from the crown to the outer edge of the cuff.
C – J	Depth of scye	Measure at centre back from the top edge of the neck to a point, level with the base of the scye.
C – H	Half back neck	Measure from centre back to the shoulder seam around the natural curve of the back neckline.
I – H	Half front neck	Measure from centre front to the shoulder seam around the natural curve of the front neckline

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Table 4 – Size range

1	2	3	4	5	6	7	8	9	10
Size designation ¹	Nominal finished garment measurements, in cm								
	Circumference		Back length	Back width	Depth of scye	Overarm Sleeve length ²	Bottom hem circumference	Half back neck	Half front neck
	Bust	Waist							
28	92	85	60.2	33	18.7	19.95	99	12.7	15.2
30	94.5	87.5	60.8	34	19.3	20.3	101.5	12.8	15.3
32	97	90	61.4	35	19.9	20.65	104	12.9	15.4
34	102	95	62	36	20.5	21	109	13	15.5
36	107	100	62.6	37	21.1	21.35	114	13.1	15.6
38	112	105	63.2	38	21.7	21.7	119	13.2	15.7
40	117	110	63.8	39	22.3	22.05	124	13.3	15.8
42	122	115	64.4	40	22.9	22.4	129	13.4	15.9
44	127	121	65	41	23.5	22.75	135	13.5	16
46	132	127	65.6	42	24.1	23.1	141	13.6	16.1
48	137	133	66.2	43	24.7	23.45	147	13.7	16.2
50	142	139	66.8	44	25.3	23.8	153	13.8	16.3
52	147	145	67.4	45	25.9	24.15	159	13.9	16.4
54	152	151	68	46	26.5	24.5	165	14	16.5
56	157	157	68.6	47	27.1	24.85	171	14.1	16.6
58	162	163	69.2	48	27.7	25.2	177	14.2	16.7
60	167	169	69.8	49	28.3	25.55	183	14.3	16.8
1) Based on the bust circumference in centimetres of the intended wearer. 2) Underarm sleeve length to measure 6.5 cm on all sizes. Sleeve length shall serve as a guideline, since it shall be determined in conjunction with the sleeve length of the red Team Leader jacket (Item Number C0120/Doc No. SAA 913), ensuring that the sleeve of the top does not protrude beyond the sleeve of the jacket.									

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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 Front

Front to:

- ◆ consist of a single panel
- ◆ have bust darts
- ◆ be shaped along the side seams
- ◆ have slits at the bottom side seams
- ◆ have a round neck that shall be faced with outer material
- ◆ shaped bottom hems (slight)

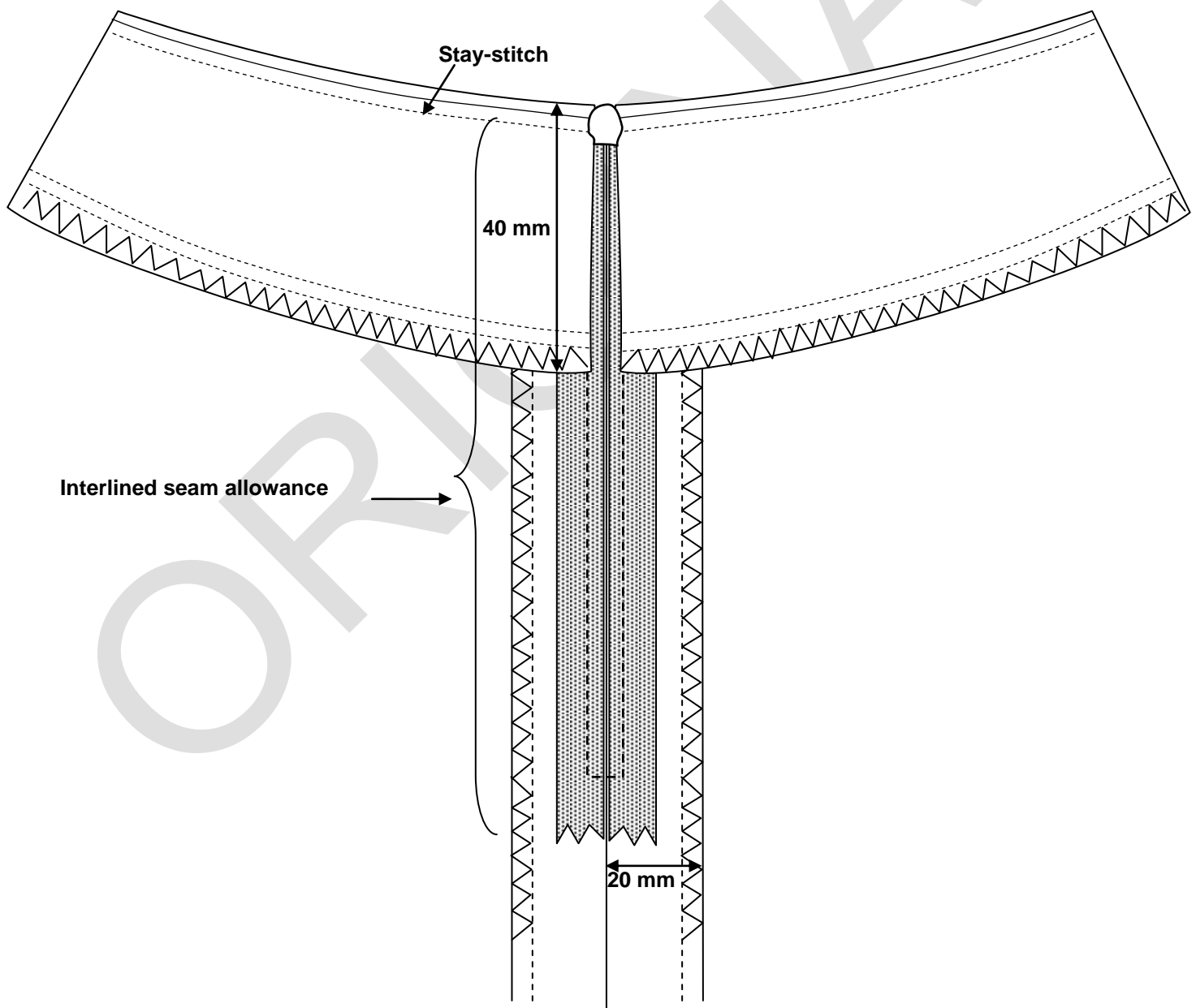


Figure 3 – Back inside view

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9.2 Back

- ♦ consist of two panels, having a centre back seam
- ♦ centre back seam allowance to be 20 mm
- ♦ centre back seam to be fitted with a slide fastener
 - to extend from the top edge of the neck
 - slide fastener to be of nominal length 15 cm
 - top-stitched 6 mm along the edges
- ♦ be shaped along the side seams
- ♦ shaped bottom hem (slight)

9.3 Neckline

Neckline

- ♦ cut in such a way that the neck shall not gape
- ♦ such that the neck drop shall be 55 mm
- ♦ comply with the measurements given in table 4
- ♦ interlined with a 10 mm wide strip of interlining to ensure shape retention
- ♦ have a facing

Facing:

- ♦ of outer material
- ♦ of finished width 40 mm
- ♦ overlocked along the bottom edge
- ♦ stay-stitched and then sewn down 35 mm from the top edge of the neckline

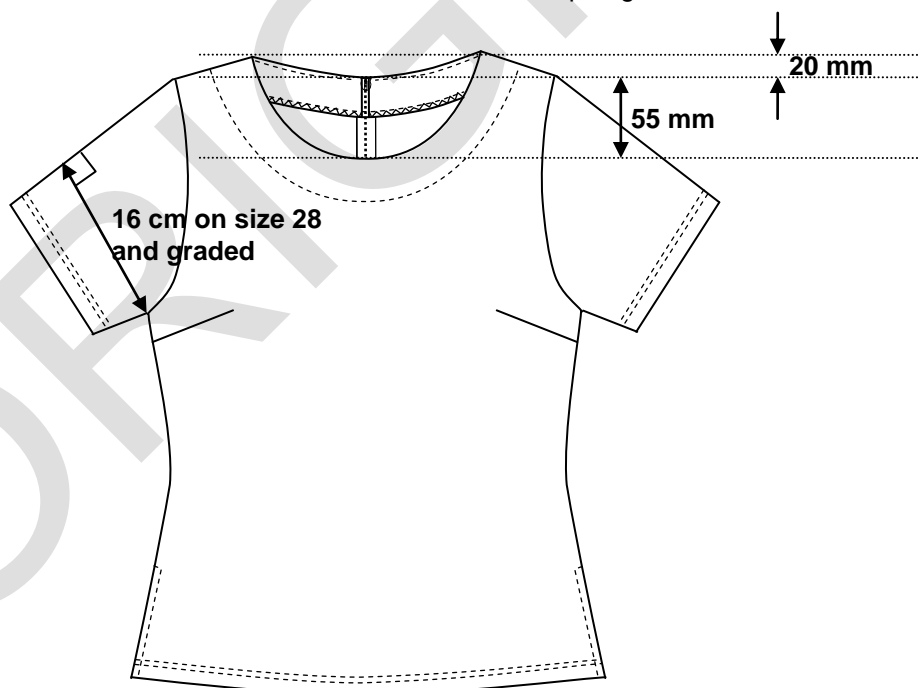


Figure 4 – Neckline and bicep

9.4 Sleeves

The sleeves shall be:

- ♦ short

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- ◆ set-in
- ◆ a slim fit sleeve (yet comfortable)
- ◆ hemmed with a 20 mm cover seam
- ◆ such that the bicep circumference (measured at a 90° angle) and cuff circumference on size 28 shall be 32 cm and graded proportionally on smaller and larger sizes

9.5 Side slits

The side slits shall be:

- ◆ of finished length 12 cm
- ◆ stitched down 8 mm

9.6 Bottom hem

The bottom hem shall be:

- ◆ of width 20 mm
- ◆ cover seamed

10. Stitches, Seams and Stitchings

10.1 Stitches

Main seaming: safety stitch

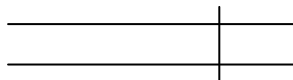
Overlocking: three-thread overlocking stitch

Hems: cover seams

Side slits: single needle locks stitch

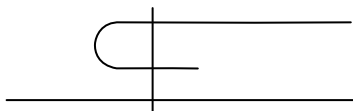
10.2 Seams

Main seaming: seam type SSa



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

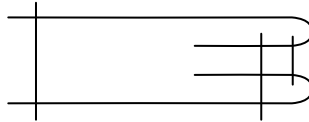
Attachment of slide fastener: seam type LSd-1



Turn in the edge of one ply of material, lap it on the body of a second ply (at the specified distance from the edge of the second ply), and seam with the appropriate number of rows of stitches.

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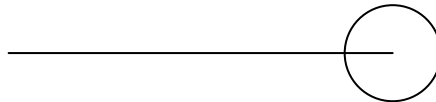
Neckline facing-to-body seam: seam type SSe-3 (amended)



Form seam Type SSa-1, using two plies of material. Then turn back one ply at the seam and staystitch. Turn the other ply at the seam and seam through all layers with the appropriate number of rows of stitches.

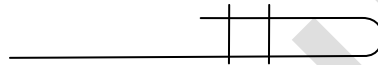
10.3 Stitchings

All exposed raw edges: stitching type EFd



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

Bottom hem and sleeve hems: stitching type EFa-2



Turn in the specified width at the edge of a ply of material and stitch the turned edge with the appropriate number of rows of stitches.

10.4 Number of stitches

The determination of sewing stitches per unit length: use SANS 5278 "Sewing stitches per unit length"

Seaming: 40 ± 4 per 10 cm

Overlocking: 40 ± 4 per 10 cm

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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 5:

Table 5 – 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 back neck facing
- ♦ 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

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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

12. Packaging and marking of packaging

12.1 Packing

12.1.1 The tops 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

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12.1.2 Tops:

- ♦ of the same size designation and colour to be packed together in a bulk container (unless quantities ordered are such that packing together of the same size and colour only are not justified)
- ♦ of different size designations and colours 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 colour
- ♦ 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, tops, 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 SABS Standards Division².

CKS 129, *Colours for textiles.*

CKS 627, *Fusible interlinings.*

ISO 5077:2007, *Textiles – Determination of dimensional change in washing and drying.*

ISO 6330:2000, *Textiles – Domestic washing and drying procedures for textile testing.*

ISO 105-C06:2010, *Textiles – Tests for colour fastness – Part C06: Colour fastness to domestic and commercial laundering.*

ISO 13936-1:2004, *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 82, *Width of a textile fabric in a piece or roll.*

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

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

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads.*

SANS 1822, *Slide fasteners.*

SANS 1833-2/ISO 1033-2, *Textiles – Quantitative chemical analysis – Part 2: Ternary fibre mixtures.*

SANS 1833-11/ISO 1033-11, *Textiles – Quantitative chemical analysis – Part 11: Mixtures of cellulose and polyester fibres (method using sulfuric acid).*

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

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

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

SANS 10371, *Terms and definitions for clothing.*

SANS 11108, *Washing pretreatment of textile fabrics.*

² **SABS: Tel. +27 (0) 12 4287911**
www.sabs.co.za

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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 SABS³. All applications must be submitted in writing.

A-1.2 Three pre-production sample tops, of each colour and 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 tops 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 tops supplied to this specification may be in progress

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

A-1.5 Before acceptance, the tops 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 tops, 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

³ 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				
DOC ISSUE	DATE	AMENDMENTS/HISTORY	CHECKED	
			NAME	INIT.
1	July 2010	First release		
3	March 2014	New size chart Aligned spec to new sample garment Add CKS 129 Colours		

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