



Suppliers' Quality Assurance Manual

Volume Two: Reference Materials

The Warehouse Limited
Version 1.3
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Introduction

What is this manual for?

This manual explains The Warehouse Limited's apparel QA processes, and the standards that all our Suppliers will be tested to when producing apparel for us.

It is intended for use by all our apparel Suppliers, to familiarise themselves with our expectations prior to tendering for work; and, subsequently, as a reference guide to help Suppliers through the manufacturing phase.

Contents

The manual is comprised of two volumes.

The first volume describes the process and provides guidelines for what Suppliers are expected to do. It should be read in full by all Suppliers.

The second volume (this volume) contains all the reference material that may be needed in the course of fulfilling a Warehouse order. It should be used as support and reference during the manufacture process to ensure that all Warehouse standards and expectations are met.

Volume Two Sections	Contents
Section Six: Document Samples	<ul style="list-style-type: none">• Samples of key documents used in the QA process outlined in Section One
Section Seven: Fabric Testing References	<ul style="list-style-type: none">• Details of tests that are outlined in Section Two
Section Eight: Care Instructions	<ul style="list-style-type: none">• Care Instruction Label details
Section Nine: Labelling Requirements	<ul style="list-style-type: none">• Details of sew-in label requirements• Size designations for labelling• High fire danger artwork
Section Ten: How to Measure	<ul style="list-style-type: none">• Provides illustrations of how each measurement should be made
Section Eleven: Infants and Childrenswear Size Charts and Special Instructions	<ul style="list-style-type: none">• Details of requirements for children's fire hazard compliance• Duty free maximum measurements• Size charts for infants and children
Section Twelve: Grading	<ul style="list-style-type: none">• Grading tables for all clothing types• Size charts for women and men.

Feedback

We welcome and encourage feedback about the content of this manual and our Quality Assurance process at The Warehouse. If you wish to contact us please email quality@thewarehouse.co.nz

Section Six: Document Samples

What is this section about?

This section contains examples of the documents which are used in the QA process.

What should it be used for?

It should be used for reference only.

What does it contain?

The following document samples are included:

- Garment Specification Form
 - Approval Request Form.
-

6a Garment Specification Form

The Warehouse Ltd		Garment Specification		13/04/2007 3:15:05 p.m.	
REF. No.WTOP0003-1				Page 1	
				Revision 1	
DESCRIPTION: EXAMPLE SPEC					
FABRIC					
1. Outer trim:		AS REQUIRED			
2. Outer shell:		1 X 1 RIB 100% COTTON 240GSM.			
THIS SECTION CONTAINS MAIN FABRIC INFORMATION CONTENT / CONSTRUCTION / WEIGHT ETC					
COMPLIANCE REQUIREMENTS - FABRIC TESTS					
1. Miscellaneous:		FOLLOWING FABRIC TESTS REQUIRED - ORIGINAL TEST REPORTS ARE TO BE SUBMITTED AT PP STAGE			
- DIMENSIONAL STABILITY					
- COLOUR FASTNESS - WASHING					
- RUBBING WET AND DRY					
- LIGHT					
- PILLING					
- SPIRALITY					
THE FABRIC MUST COMPLY WITH THE WAREHOUSE REQUIREMENTS					
ACCESSORIES					
1. Elastic:		CUFF, 3CM WIDE.			
2. Buttons:		ALL ACCESSORRIES ARE DETAILED TO TYPE / SIZE / NUMBER REQUIRED / ETC			
3. Hanger tapes:		ETC AS REQUIRED			
4. Print - Position:		DETAILS OF TYPE / SIZE / POSITION			
LABELS					
1. Care Instructions - C1:		REQUIRED CARE INSTRUCTIONS - TO APEAR ON GARMENT LABEL			
2. Country of Origin:					
3. Fibre content:		DETAILS TO APPEAR ON GARMENT LABEL			

Continued on next page

6a Garment Specification Form, Continued

The Warehouse Ltd	Garment Specification	13/04/2007 3:15:05 p.m.
REF. No.WTOP0003-1		Page 2 Revision 1
4. Brand Sew-In Label:	BRAND TO APPEAR ON GARMENT LABEL	
5. Swingticket - Same brand as sew-in label:		
CONSTRUCTION		
1. Construction Seams:	DETAILS OF GARMENT CONSTRUCTION	
2. Top Stitching:	DETAILS OF GARMENT FINISHING	
3. Interfacing:	WHERE REQUIRED	
SPECIAL INSTRUCTIONS		
1. Components to be tied:	SPECIAL INSTRUCTIONS FOR PRESENTAION OF BULK ETC	

Continued on next page

6a Garment Specification Form, Continued

The Warehouse Ltd		Garment Specification										13/04/2007 3:15:05 p.m.		
REF. No.WTOP0003-1												Page 3		
												Revision 1		
Ref. Code	Measure Reference Points	Size Chart										Grade Amount		
		All measurements must be in metric												
		XS	S	M	L	XL	2XL	3XL	4XL	5XL				
E1	Hem circumference	103	110.5	118	125.5	133	140.5	148	155.5	163			7.5	
B1	Chest circumference	103	110.5	118	125.5	133	140.5	148	155.5	163			7.5	
A1	Total length from HSP to hem	73	74.5	76	77.5	79	80.5	82	83.5	85			1.5	
Z1	Front neck drop from HSP to seam	16	16.5	17	17.5	18	18.5	19	19.5	20			0.5	
H1	Armdrop	23.5	24.25	25	25.75	26.5	27.25	28	28.75	29.5			0.75	

Refer to "How to Measure guide" for exact method & position of measuring in relation to the specified Measurement Reference Points on the size chart above

Maximum Allowable Tolerances

WOVEN FABRICS	UNDER 10CM = +/-0.5CM	10CM - 60CM = +/-1CM	OVER 60CM = +2CM / -1CM
KNITTED FABRICS	UNDER 10CM = +/-0.5CM	10CM - 35CM = +/-1CM	OVER 35CM = +2CM / -1CM
EXCEPTIONS	COLLAR (WOVEN) = +/-0.5CM	ARMDROP = +/- 0.5CM	NECK WIDTH = +/- 0.5CM

Compliance Tests :

All test reports are to be original documents from an approved testing lab.
 Test reports must state the order numbers and have fabric swatches attached.
 All test reports must be submitted at Preproduction stage

Continued on next page

6a Garment Specification Form, Continued

The Warehouse Ltd

Garment Specification

13/04/2007 3:15:05 p.m.

REF. No.WTOP0003-1

Page 4

Revision 1

SKETCH OF GARMENT WITH ANY NON REGULAR
MEASUREMENT POINTS NOTED



6b: Approval Request Form

The Warehouse Ltd		Approval Request Form
DATE:	<input style="width: 100%;" type="text"/>	
BUYER:	DESCRIPTION:	<input style="width: 100%;" type="text"/>
SPEC. REF. #:	SUPPLIER:	Ship Date:
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
ORDER Nos:	SAMPLE SIZES	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	
SAMPLE STATUS:	1st <input type="checkbox"/>	Pre-Prodn <input type="checkbox"/> Shipping: <input type="checkbox"/>
1st Approval or Pre-Prodn samples MUST have all relevant boxes marked X		
Shipping samples will automatically be audited on all points - no need to X		
<div style="display: flex; justify-content: space-around; align-items: center;"> SUBSTITUTE FOR APPROVAL </div>		
GARMENT:	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">↓</div> <div style="text-align: center;">↓</div> </div>	COMMENTS
Fit	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input type="checkbox"/>	<input type="checkbox"/>
FABRICS:		
Weight	<input type="checkbox"/>	<input type="checkbox"/>
Yarn Count	<input type="checkbox"/>	<input type="checkbox"/>
Fill	<input type="checkbox"/>	<input type="checkbox"/>
Lining	<input type="checkbox"/>	<input type="checkbox"/>
Wash/Finish	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>
ACCESSORIES:		
Buttons	<input type="checkbox"/>	<input type="checkbox"/>
Zips	<input type="checkbox"/>	<input type="checkbox"/>
Cord/Drawcord	<input type="checkbox"/>	<input type="checkbox"/>
Tape	<input type="checkbox"/>	<input type="checkbox"/>
Velcro	<input type="checkbox"/>	<input type="checkbox"/>
Studs/Domes/Rivets	<input type="checkbox"/>	<input type="checkbox"/>
Badge/Embroidery	<input type="checkbox"/>	<input type="checkbox"/>
Collar	<input type="checkbox"/>	<input type="checkbox"/>
Pip/Feature Label	<input type="checkbox"/>	<input type="checkbox"/>
Placement Print	<input type="checkbox"/>	<input type="checkbox"/>
Topstitch Thread	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>
LABELLING:		
Brand Label/size pip	<input type="checkbox"/>	<input type="checkbox"/>
Care/Content/Origin	<input type="checkbox"/>	<input type="checkbox"/>
Swingticket	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>
PACKAGING:		
Hanger Pack	<input type="checkbox"/>	<input type="checkbox"/>
Hanger	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>
APPROVED VARIATIONS TO SPEC:		
<input style="width: 100%; height: 20px;" type="text"/>		
<input style="width: 100%; height: 20px;" type="text"/>		
<input style="width: 100%; height: 20px;" type="text"/>		

Section Seven: Fabric Testing References

What is this section about?

Section Seven contains supporting information regarding fabric testing.

What should it be used for?

It should be used as reference material once a Supplier has identified the tests required (either from the tables in Volume One, Section Two or from a TWL Specification) to clarify the particular test standard and the required outcome of the test.

What does it contain?

- Fabric test requirements for garments of various types:
 - Woven fabrics
 - Knitted fabrics and knitwear
 - Swimwear, Beachwear, Swim Shorts, Activewear and Leggings
 - Underwear and lingerie
 - Spirality
 - Durability
 - Ironing resistance of prints
 - Strength
 - Stretch and recovery.
-

7a: Tests For Garments Made Of Woven Fabrics

COLOUR FASTNESS		
TEST DESCRIPTION	TEST METHOD	REQUIREMENT
WASHING	AS2001.4.15	All fabrics except below: 4 colour change; 3-4 staining; 4-5 cross staining Denim, flannelette, pigment & overdyes: 3-4 c; 3s; 4-5 c/s
DRY CLEANING	AS2001.4.16	All fabrics except below: 4-5 colour change; 4 staining; 4-5 cross staining Denim, flannelette, pigment & overdyes: 3-4 c; 3s; 4 c/s
PERSPIRATION	ISO105.E04	4 colour change; 3-4 staining; 4-5 cross staining
WATER	AS2001.4.E01	All fabrics except below: 4 colour change; 3-4 staining; 4-5 cross staining Denim, flannelette, pigment & overdyes: 4 c; 3-4 s; 3-4 c/s
DRY RUB	AS2001.4.3	All fabrics except below 4 colour change; 4 staining Denim, flannelette, pigment & overdyes 3c; 3s
WET RUB	AS2001.4.3	All fabrics except below : Infants / Children's 3-4 colour change; 3-4 staining. Adults 3-4 colour change; 3 staining. Denim, flannelette, pigment & overdyes 3c; 2-3s; all prints 3-4c
LIGHT	AS2001.4.B02	All fabrics except below: 4-5 (blue scale rating) Denim: 4 (blue scale rating) Pigment, overdyes & fluoro dyes/prints: 3-4 (blue scale rating) Light colours: Knits, 3. Wovens, 3-4. Exception: rash vests and swimwear, which should be 4, as above.

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7a: Tests For Garments Made Of Woven Fabrics, Continued

PHYSICAL		
TEST DESCRIPTION	TEST METHOD	REQUIREMENT
DIMENSIONAL STABILITY TO WASHING (3 times)	AS2001.5.4	+/- 3%
DIMENSIONAL STABILITY TO DRYCLEANING	AS2001.5.7	+/-3%
PILLING	ISO 12945-1	Dress, skirt, pants: 4 min after 18000 revs Tops: 3-4 min after 10000 revs
ABRASION	AS2001.2.25	10000 cycles, grade 4 after 5000 cycles
TEAR STRENGTH	AS2001.2.8	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
TENSILE STRENGTH	AS2001.2.3, Method A for general or Method C for coated fabrics	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
SEAM SLIPPAGE	AS2001.2.21-For Garment AS2001.2.22 -For Fabric	Max. 6 mms
SEAM STRENGTH	AS2001.2.20, Method A	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
APPEARANCE AFTER WASHING (3 times), PRINT DURABILITY	AS2001.5.4	No significant change
FIBRE ANALYSIS	AS2001.7	+/- 5%
IRONING RESISTANCE OF PRINTS	Appendix 2	No mark-off of print at ironing
FLAMMABILITY OF CHILDREN'S NIGHTWEAR, FIRE LABEL DURABILITY	AS/NZS 1249:1999	Legal requirements of the standards
ACCELERATOR PILE LOSS	AATCC 93	16% maximum pile loss & visual assessment, negligible
STRETCH AND RECOVERY	BS 4294 6kgf- with elastane	Refer to table STRETCH AND RECOVERY
Formaldehyde	ISO-14184-1 (Water Extraction method)	300ppm – Decorative Material or products without direct skin contact. 75ppm – Products that come into direct skin contact. 20ppm – Products for children under 24 months.

7b: Tests For Garments Made Of Knitted Fabrics And Knitwear

COLOUR FASTNESS		
TEST DESCRIPTION	TEST METHOD	REQUIREMENT
WASHING	AS2001.4.15	4 colour change; 3-4 staining; 4-5 cross staining
PERSPIRATION	ISO105.E04	4 colour change; 3-4 staining; 4-5 cross staining
WATER	AS2001.4.E01	4 colour change; 3-4 staining; 4-5 cross staining
DRY RUB	AS2001.4.3	4 staining
WET RUB	AS2001.4.3	All fabrics except below: Infants / Children's 3-4 staining and colour change. Adults 3-4 colour change; 3 staining. Pigment dyes 3c; 2-3s; all prints 3-4c.
LIGHT	AS2001.4.B02	4 (blue scale rating) Light colours: Knits, 3. Wovens, 3-4. Exception: rash vests & swimwear, which should be 4 as above.
DRY CLEANING	AS2001.4.16	4-5 colour change; 4 staining; 4-5 cross staining
PHYSICAL		
TEST DESCRIPTION	TEST METHOD	REQUIREMENT
DIMENSIONAL STABILITY TO WASHING (3 times)	AS2001.5.4	+/-5%
SPIRALITY	Appendix 1	Max 5%
SEAM STRENGTH	AS2001.2.20	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
PILLING	ISO 12945-1	Grade 3-4 min after 14400 revs, traditional Knitwear grade 3 min.
BURSTING STRENGTH	AS2001.2.4 (preferable) or AS 2001.2.19	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
ACCELERATOR PILE LOSS	AATCC 93	Pile fabrics: 16% maximum pile loss & visual assessment, negligible
APPEARANCE AFTER WASHING (3 times), PRINT DURABILITY	AS2001.5.4	No significant change
FLAMMABILITY OF CHILDREN'S NIGHTWEAR, FIRE LABEL DURABILITY	AS/NZS 1249 :1999	Legal requirements of the standards
FIBRE ANALYSIS	AS2001.7	+/- 5%
IRONING RESISTANCE OF PRINTS	Appendix 2	No mark-off of print at ironing
STRETCH AND RECOVERY	BS 4294 3kgf- without elastane 6kgf- with elastane	Refer to table STRETCH AND RECOVERY
WATER ABSORBENCY	AATCC 79	5 sec or less
WICKING	JIS L 1907, Byreck method	5cm for 100% Nylon and 7cm for Polyester or Cotton
Formaldehyde	ISO-14184-1 (Water Extraction method)	300ppm – Decorative Material or products without direct skin contact. 75ppm – Products that come into direct skin contact. 20ppm – Products for children under 24 months.

7c: Tests For Swimwear, Beachwear, Swim Shorts, Active Wear, Leggings

COLOUR FASTNESS		
TEST DESCRIPTION	TEST METHOD	REQUIREMENT
WASHING	AS2001.4.15	4 colour change; 3-4 staining; 4-5 cross staining
PERSPIRATION	ISO105.E04	4 colour change; 3-4 staining; 4-5 cross staining
WATER	AS2001.4.E01	4 colour change; 3-4 staining; 4-5 cross staining
DRY RUB	AS2001.4.3	4 staining
WET RUB	AS2001.4.3	3-4 staining
LIGHT	AS2001.4.B02	4 (blue scale rating) Light colours: Knits, 3. Wovens, 3-4. Exception: rash and swimwear, which should be 4 as above.
SEA WATER (No need for active wear and leggings)	ISO 105 E02	4 colour change; 3-4 staining
CHLORINATED WATER (No need for active wear and leggings)	ISO 105 E03	4 colour change. Beachwear – 20 mg/l; Swimwear – 50 mg/l
PHYSICAL		
TEST DESCRIPTION	TEST METHOD	REQUIREMENT
DIMENSIONAL STABILITY TO WASHING (3 times)	AS2001.5.4	Wovens & Knits with cotton– +/-5% Wovens & Knits – polyester, nylon only – +/- 3%
SPIRALITY	Appendix 1	Max 5%
PILLING	ISO 12945-1	Grade 3-4 min after 14400 revs, Traditional Swimwear grade 3 min.
BURSTING STRENGTH	AS2001.2.4	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
TENSILE STRENGTH	AS2001.2.3	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
SEAM SLIPPAGE	AS2001.2.21 – For Garment AS2001.2.22 – For Fabric	Max. 6 mms
SEAM STRENGTH	AS2001.2.20	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
APPEARANCE AFTER WASHING (3 times), PRINT DURABILITY	AS2001.5.4	No significant change
FIBRE ANALYSIS	AS2001.7	+/- 5%
IRONING RESISTANCE OF PRINTS	Appendix 2	No mark-off of print at ironing
STRETCH AND RECOVERY	BS 4294 3kgf- without elastane 6kgf- with elastane	Refer to table STRETCH AND RECOVERY
WATER ABSORBENCY	AATCC 79	5 sec or less
WICKING	JIS L 1907, Byreck method	5cm for 100% Nylon and 7cm for Polyester or Cotton
Formaldehyde	ISO-14184-1 (Water Extraction method)	300ppm – Decorative Material or products without direct skin contact. 75ppm – Products that come into direct skin contact. 20ppm – Products for children under 24 months.

7d: Tests For Underwear, Lingerie

COLOUR FASTNESS		
TEST DESCRIPTION	TEST METHOD	REQUIREMENT
WASHING	AS2001.4.15	4 colour change; 3-4 staining; 4-5 cross staining
PERSPIRATION	ISO105.E04	4 colour change; 3-4 staining; 4-5 cross staining
WATER	AS2001.4.E01	4 colour change; 3-4 staining; 4-5 cross staining
DRY RUB	AS2001.4.3	4 staining
WET RUB	AS2001.4.3	3-4 staining
LIGHT	AS2001.4.B02	4 (blue scale rating) Light colours: Knits, 3. Wovens, 3-4.
PHYSICAL TESTS		
TEST DESCRIPTION	TEST METHOD	REQUIREMENT
DIMENSIONAL STABILITY TO WASHING (3 times)	AS2001.5.4	Line dry except polyester, nylon – +/-5% Line dry – Polyester, nylon →/-3%
SPIRALITY	Appendix 1	Max 5%
PILLING	ISO 12945-1	Knits – grade 3 min after 14400revs Wovens – grade 3-4 min after 10,000rev
TEAR STRENGTH	AS 2001.2.8	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
BURSTING STRENGTH	AS2001.2.4	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
TENSILE STRENGTH	AS2001.2.3	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
SEAM SLIPPAGE	AS2001.2.21 – For Garment AS2001.2.22 – For Fabric	Max. 6 mms
SEAM STRENGTH	AS2001.2.20	Refer to table STRENGTH TESTING REQUIREMENTS FOR GARMENT TYPES
APPEARANCE AFTER WASHING (3 times), PRINT DURABILITY	AS2001.5.4	No significant change
FIBRE ANALYSIS	AS2001.7	+/- 5%
IRONING RESISTANCE OF PRINTS	Appendix 2	No mark-off of print at ironing
STRETCH AND RECOVERY	BS 4294 3kgf- without elastane 6kgf- with elastane	Refer to table STRETCH AND RECOVERY
Formaldehyde	ISO-14184-1 (Water Extraction method)	300ppm – Decorative Material or products without direct skin contact. 75ppm – Products that come into direct skin contact. 20ppm – Products for children under 24 months.

7e: Spirality Calculation

Aim of test To determine any distortion or twisting defined as 'spirality', which may occur after a single jersey construction has been washed or drycleaned.

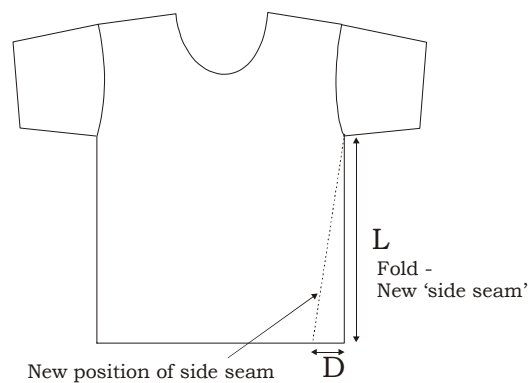
How to test Follow the test method for either dimensional stability to washing or dimensional stability to drycleaning.

If spirality is evident, the overlocked seam originally placed at the side of the garment will have moved sideways, causing a new natural fold or 'side seam'.

Compare both sides of the garment from the new natural fold to the overlocked seam. Record the distance in millimetres and take an average measurement – this is referred to as 'D'.

Measure length 'L' of the new 'side seam' of the folded fabric.

Refer to figure below as a basis of the calculation:



Calculation methodology Spirality = $(D/L) \times 100\%$

D – the distance of seam movement in mm
L – the length of the sample in mm

Assessing results The maximum movement permitted is 5%.

7f: Durability Wash

Aim of test	The test used to assess the durability of motifs and prints to washing.
How to test	<p>The print attached to the fabric base is subjected to a 15 minutes wash in a twin tub washing machine with Persil Biological washing powder.</p> <p>Two reference samples are needed for comparison of unwashed sample with washed sample.</p> <ul style="list-style-type: none">• Washing machine to be loaded up to 1 kg with polyester make-weights and filled to full mark (approx. 40L).• Wash temperature used must relate to care label washing instructions of the garments:<ul style="list-style-type: none">○ Cold wash – normal water supply temperature○ Warm wash - 40° C○ Hot wash - 60° C○ Boil - 100° C• Add 30 g of detergent and dissolve in the water.• Wash the machine load for 15 minutes at the required temperature.• Remove tested sample and make-weights .• Rinse the test sample and make-weights separately, twice in the spinner using cold water.• Dry test sample as per drying instructions ('line dry in shade' etc.)• Assess any change in appearance against unwashed original sample.
Assessing results	<p>Where there are no noticeable changes in the appearance of the test sample compared to the unwashed sample, state 'No significant change' in the report.</p> <p>When there are changes in appearance which are not considered satisfactory, state 'Significant change' and specific details should be given.</p>

7g: Ironing Resistance Of Prints

Aim of test

To assess the resistance of prints colour transfer when ironed.

How to test

The principal of the test is that a piece of fabric is placed on to the print and then ironed. The fabric is then assessed for any colour/ print transfer from the print to the fabric.

- Set iron temperature in accordance with the ironing instructions on the garment.
 - Cover entire print (face up) placed on the ironing board with sufficient cotton lawn and apply iron to cotton lawn for 30 seconds and ensure entire print is ironed.
 - Remove cotton lawn and allow to cool.
-

Assessing results

When there are no noticeable colour/ print stains on the cotton lawn state 'No mark-off of print at ironing'.

7h: Strength Testing

Fabric/ pressure table

The table below provides a matrix of the required bursting pressure for various fabric types.

Specific garment types must meet either the A, B, C or D standards. The Garment Strength table which follows indicates which standard must be applied to each garment type.

ISSUE	FABRIC	FORCE, N (min.)				BURSTING PRESSURE, KPA (min.)			
		A	B	C	D	A	B	C	D
SEAM BREAKING FORCE	GENERAL	110	95	80	65	480	480	330	330
BURSTING FORCE OR PRESSURE	KNITTED	350	300	280	200				
SEAM OPENING(SLIPPAGE)	WOVEN	110	95	80	65				
TEARING FORCE	WOVEN	12	10	8	6				
BREAKING FORCE	WOVEN	220	190	160	130				

Continued on next page

7h: Strength Testing, Continued

ANGEL SUITS (INFANTS) Normal Fitting Loose Fitting Styles	C D	PYJAMAS	C
BLOUSES Normal Fitting Loose Fitting Styles	C D	ROMPERSUITS (INFANTS)	C
COATS Normal Fitting Loose Fitting Styles	B C	SHIRTS Normal Fitting Loose Fitting Styles	B C
CORSETRY & BRAS	C	SHORTS Normal Fitting Loose Fitting Styles	A B
DRESSES Normal Fitting Loose Fitting Styles	C D	SKIRTS Normal Fitting Loose Fitting Styles	B C
OVERALLS(Childrens)	A	SKIVVIES	C
DRESSING GOWNS	C	SLACKS Normal Fitting Loose Fitting Styles	A B
GARMENT LINING	C	SLEEPSUITS (INFANTS)	C
JACKETS Normal Fitting Loose Fitting Styles	B C	SLOPPY JOES	C
JEANS Normal Fitting Loose Fitting Styles	A B	SUN SUITS Normal Fitting Loose Fitting Styles	C D
JOGGING SUITS Tops Bottoms	C B	SWIMWEAR	A
KNITWEAR	C	TANK TOPS	C
LEOTARDS	B	TRACKSUITS Tops Bottoms	C B
LOUNGE SUITS Tops Bottoms	C D	T-SHIRTS	C
NIGHTDRESSES Normal Fitting Loose Fitting Styles	C D	TROUSERS Normal Fitting Loose Fitting Styles	C
PILCHER SETS (INFANTS) Normal Fitting Loose Fitting Styles	C D	UNDERWEAR Normal Fitting Lace & Pointelle Structures	C D

7i: Stretch and Recovery Requirements

Tables

The tables below describe the stretch and recovery requirements for various fabric types. The types covered are:

1. Weft knit fabrics
2. Warp knit fabrics
3. Cuffs, basques, neckbands and trims
4. Woven fabric with elastane.

TABLE ONE: WEFT KNIT FABRICS

Fabric Type	Fabric Description	Stretches/ Residual Extension
Single Jersey	Cotton	Length stretch 20-30% Width Stretch 60-100% Length R.Ext. 10%(max) Width R.Ext. 30%(max)
	Polyester/Cotton 65/35	Length stretch 20-30% Width Stretch 60-100% Length R.Ext. 5%(max) Width R.Ext. 10%(max)
	Polyester/Cotton/ Elastane - HEAVY	Length stretch 90-130% Width Stretch 140-200% Length R.Ext. 10%(max) Width R.Ext. 15%(max)
	Polyester/Cotton/ Elastane – LIGHT AND MEDIUM	Length stretch 90-130% Width Stretch 140-200% Length R.Ext. 15%(max) Width R.Ext. 30%(max)
Weft knit mesh with or without elastane	Polyester	Length stretch 20 % (min)
		Width stretch 60% (min)
		Length R.Ext.15% (max)
		Width R.Ext. 30% (max)
Fleece, French terry	Cotton Polyester Polyester/Viscose	Length stretch 20%(min) Width Stretch 30%(min) Length R.Ext. 10%(max) Width R.Ext. 15%(max)
	Polyester/Cotton 65/35	Length stretch 15%(min) Width Stretch 30%(min) Length R.Ext. 5%(max) Width R.Ext. 10%(max)

Continued on next page

7i: Stretch and Recovery Requirements, Continued

Fabric Type	Fabric Description	Stretches/ Residual Extension
Interlock	Cotton	Length stretch 20%(min) Width Stretch 100%(min) Length R.Ext. 20%(max) Width R.Ext. 50%(max)
	Polyester/Cotton 65/35	Length stretch 15%(min) Width Stretch 100%(min) Length R.Ext. 5%(max) Width R.Ext. 30%(max)
1x1 Rib	Cotton	Length stretch 20%(min) Width Stretch 170%(min) Length R.Ext. 20%(max) Width R.Ext. 50%(max)
Needle out varigated rib	Cotton	Length stretch 20%(min) Width Stretch 170%(min) Length R.Ext. 20%(max) Width R.Ext. 50%(max)
Ponte-De-Roma	100% Acrylic	Length stretch 20%(min) Width Stretch 30%(min) Length R.Ext. 5%(max) Width R.Ext. 10%(max)
Pique	Polyester/Cotton 65/35	Length stretch 20-30% Width Stretch 60-100% Length R.Ext. 10%(max) Width R.Ext. 30%(max)

TABLE TWO: WARP KNIT FABRICS

Fabric Type	Fabric Description	Stretches/ Residual Extension
Warp Knitted	Without elastane	Length stretch 150%(min) Width Stretch 30%(min) Length R.Ext. 10%(max) Width R.Ext. 5%(max)
Warp Knitted Tricot	With elastane	Length stretch 200%(min) Width Stretch 120%(min) Length R.Ext. 25%(max) Width R.Ext. 15%(max)

Continued on next page

7i: Stretch and Recovery Requirements, Continued

TABLE THREE: CUFFS, BASQUES, NECKBANDS AND TRIMS

Fabric Description	Stretches/ Residual Extension
100% Cotton	Length Stretch 20% Min Width Stretch 170% Min Length Res.Ext. 20% Max Width Res.Ext. 30% Max
Polyester/Cotton	Length Stretch 20% Min Width Stretch 150% Min Length Res. Ext. 10% Max Width Res. Ext. 30% Max

TABLE FOUR: WOVEN FABRIC WITH ELASTANE

Fabric Description	Stretches/ Residual Extension
The direction with elastane	Recovery 5% max

Section Eight: Care Instructions

What is this section about?

Section Eight contains details of the Care Instructions which are required by The Warehouse Limited.

What should it be used for?

Suppliers should use this section as a reference to ensure that all Care Instructions are correctly worded, and applied to the correct fabric and garment type.

What does it contain?

- Care Instruction label standards
 - A Care Instruction Matrix, identifying the instructions that are required for each fabric/garment type
 - The specific wording of the instructions.
-

8a: Care Instruction – Printed/Woven Labels

Printed

In printed care instruction labels:

- Instructions can be printed on satin or PVC
 - Suppliers must ensure that the print meets the required durability standards where the print lasts the lifetime of the garment.
-

Woven labels

For woven bottoms and garments which require a wash treatment, the care instructions should be provided in a woven label.

8b: Care Instruction Matrix

How to use this matrix

- Select the garment type from the left-hand column and match with the fibre content from the top row and follow through to the matrix for the correct care instruction code.
- Select the appropriate Care Instructions from Section 8b.

	100% cotton	100% cotton with prints or rubber trim	Cotton/Elastane	Cotton/Elastane with prints or rubber trim	Nylon, Polyester, blended with elastane	Crinkled Polyester	Nylon, Polyester, Polyester/cotton with prints or rubber trim	Viscose rayon, Ramie, Linen	Silk	Wool	Chenille	Acrylic (excl chenille)	PU, PVC	Polypropylene	Merino Wool
Tshirts, tops, skirts, pants (excl. tailored pants), shirts, shorts, dresses, overalls, rompers, sweatshirts (excl polar fleece), trackpants, nightwear (excl flannelette)	W1	W2	C1	C2	C1	C7	C2	W7	W8	-	-	-	-	-	-
Flannelette nightwear	W3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flannelette nightwear - sized to allow for shrinkage	W4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tailored pants	-	-	-	-	C5	-	-	-	-	-	-	-	-	-	-
Denim: shirts, skirts, dresses, jackets, rompers, overalls & jeans	W5	W6	C3	C4	-	-	-	-	-	-	-	-	-	-	-
Polar fleece garments	-	-	-	-	N1	-	N2	-	-	-	-	-	-	-	-
Knitwear	K2	-	-	-	-	-	-	-	-	K1	K3	K4	-	-	K5
Underwear, lingerie	L1	-	L1	-	L1	-	-	-	-	-	-	-	-	L1	-
Underwear, lingerie - delicate	L2	-	L2	-	L2	-	-	-	-	-	-	-	-	-	-
Delicate outer garments	X1	X2	X1	X2	X1	-	X2	-	-	-	-	-	-	-	-
Swimwear	-	-	S1	-	S1	-	-	-	-	-	-	-	-	-	-
Swim & running shorts, (with liners)	S2	S3	S2	S3	S2	-	S3	-	-	-	-	-	-	-	-
Hats, gloves, scarves - washable	H1	-	H1	-	H1	-	-	-	-	H5	H5	H1	-	-	H5
Hats - unwashable	H4	-	H4	-	H4	-	-	-	-	-	-	-	-	-	-
Socks, Hosiery	H1	-	H1	-	-	-	-	-	-	H2	-	H3	-	-	H2
Babies pilchers & bibs - PVC lined	A1	-	A1	-	-	-	-	-	-	-	-	-	-	-	-
Babies bibs	A2	-	A2	-	-	-	-	-	-	-	-	-	-	-	-
Lined jackets	J1	J2	J1	J2	J1	-	J2	-	-	-	-	-	J3	-	-
Workwear – multi use	U1	-	-	-	U1	-	-	-	-	-	-	-	-	-	-
Workwear - disposable	-	-	-	-	-	-	-	-	-	-	-	-	-	U2	-
Styles using Foil prints	-	W9	-	C6	-	-	C6	-	-	-	-	-	-	-	-

8c: Care Instructions

W – Warm Iron

W1	W2	W3
WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DRYCLEANABLE (P)	WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DO NOT IRON PRINT DO NOT DRYCLEAN (X)	WASH BEFORE WEARING WASH SEPARATELY GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DRYCLEANABLE (P)
W4	W5	W6
GARMENT IS SIZED TO ALLOW FOR SHRINKAGE WASH BEFORE WEARING WASH SEPARATELY GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DRYCLEANABLE (P)	WASH BEFORE WEARING COLOUR MAY RUB WASH SEPARATELY WARM MACHINE WASH DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DRYCLEANABLE (P)	WASH BEFORE WEARING COLOUR MAY RUB WASH SEPARATELY WARM MACHINE WASH DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DO NOT IRON PRINT DO NOT DRYCLEAN (X)
W7	W8	W9
WARM HAND WASH USE MILD SOAP RINSE WELL DO NOT SOAK OR BLEACH DRIP DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DRYCLEANABLE (P)	WARM HAND WASH USE MILD SOAP RINSE WELL DO NOT SOAK OR BLEACH DRIP DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DRYCLEANABLE (P)	WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – COLD DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DO NOT IRON PRINT DO NOT DRYCLEAN (X)

C – Cool Iron

C1	C2	C3
WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DRYCLEANABLE (P)	WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DO NOT IRON PRINT DO NOT DRYCLEAN (X)	WASH BEFORE WEARING COLOUR MAY RUB WASH SEPARATELY WARM MACHINE WASH DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DRYCLEANABLE (P)
C4	C5	C6
WASH BEFORE WEARING COLOUR MAY RUB WASH SEPARATELY WARM MACHINE WASH DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DO NOT IRON PRINT DO NOT DRYCLEAN (X)	WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON IRON UNDER DRY CLOTH DRYCLEANABLE (P)	WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – COLD DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DO NOT IRON PRINT DO NOT DRYCLEAN (X)

C7 CRINKLED POLYESTER
<p>WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH TWIST AND KNOT AFTER WASHING WHILST DAMP TO RETAIN CRINKLE EFFECT LINE DRY IN SHADE DO NOT TUMBLE DRY DO NOT IRON DRYCLEANABLE (P)</p>

N – No Iron

N1	N2
<p>WASH SEPARATELY GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY DO NOT IRON DRYCLEANABLE (P)</p>	<p>WASH SEPARATELY GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY DO NOT IRON DO NOT DRYCLEAN (X)</p>

K - Knitwear

K1	K2	K3
<p>WARM HAND WASH IN APPROVED WOOL DETERGENT DO NOT SOAK OR BLEACH DO NOT RUB GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRY FLAT IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DRYCLEANABLE (P)</p>	<p>WARM HAND WASH IN APPROVED WOOL DETERGENT DO NOT SOAK OR BLEACH SHORT SPIN DO NOT WRING GENTLY PULL TO SHAPE DRY FLAT IN SHADE DO NOT TUMBLE DRY WARM IRON ON REVERSE DRYCLEANABLE (P)</p>	<p>WARM HAND WASH IN APPROVED WOOL DETERGENT DO NOT SOAK OR BLEACH DO NOT RUB GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRY FLAT IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DO NOT DRYCLEAN (X)</p>
K4	K5	
<p>WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH DRY FLAT IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DRYCLEANABLE (P) —</p>	<p>WARM HAND WASH IN APPROVED WOOL DETERGENT DO NOT SOAK OR BLEACH DO NOT RUB GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRY FLAT IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DRYCLEANABLE (P)</p>	

L - Lingerie

L1	L2
<p>WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE</p>	<p>WARM HAND WASH USE MILD SOAP DO NOT SOAK OR BLEACH RINSE WELL GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRIP DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE</p>

X – Delicate Garments

X1
WARM HAND WASH USE MILD SOAP DO NOT SOAK OR BLEACH DO NOT RUB RINSE WELL GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRIP DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DO NOT DRYCLEAN ☒

X2
WARM HAND WASH USE MILD SOAP DO NOT SOAK OR BLEACH DO NOT RUB RINSE WELL GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRIP DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DO NOT IRON PRINT DO NOT DRYCLEAN ☒

Note: Fabric may require **DO NOT IRON** if pleated or with coated or printed application. Garment may require **DRY FLAT IN SHADE** or **DRY ON HANGER IN SHADE** if it should not be pegged to a washing line. Supplier may need to add **REMOVE BELT BEFORE CLEANING** - belt may be substituted with **TRIM, COLLAR**.

S - Swimwear

S1	S2	S3
RINSE OUT IN COLD WATER IMMEDIATELY AFTER USE DO NOT LEAVE FOLDED WHILST WET OR DAMP WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY DO NOT IRON AVOID CONTACT WITH ROUGH SURFACES & SUNTAN PRODUCTS	RINSE OUT IN COLD WATER IMMEDIATELY AFTER USE DO NOT LEAVE FOLDED WHILST WET OR DAMP WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE	RINSE OUT IN COLD WATER IMMEDIATELY AFTER USE DO NOT LEAVE FOLDED WHILST WET OR DAMP WASH WITH SIMILAR COLOURS GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH LINE DRY IN SHADE DO NOT TUMBLE DRY COOL IRON ON REVERSE DO NOT IRON PRINT

H – Hats and Hosiery

H1	H2	H3
WASH WITH SIMILAR COLOURS WARM MACHINE WASH LINE DRY IN SHADE DO NOT TUMBLE DRY	WARM HAND WASH IN APPROVED WOOL DETERGENT GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRIP DRY IN SHADE DO NOT TUMBLE DRY	WASH WITH SIMILAR COLOURS WARM MACHINE WASH MAY BE TUMBLE DRIED WARM
H4	H5	H6
SPONGE WITH DAMP (NOT WET) CLOTH & DRY IMMEDIATELY DRY AWAY FROM DIRECT HEAT DO NOT WASH	WARM HAND WASH IN APPROVED WOOL DETERGENT GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRY FLAT IN SHADE DO NOT TUMBLE DRY	WARM HAND WASH IN GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING DRIP DRY IN SHADE DO NOT TUMBLE DRY

A – Babies’ Accessories

A1	A2
<p>RINSE OUT IN COLD WATER WARM HAND WASH WITH MILD SOAP DO NOT SOAK OR BLEACH GENTLY SQUEEZE OUT EXCESS WATER DO NOT WRING LINE DRY IN SHADE OR AWAY FROM DIRECT HEAT DO NOT TUMBLE DRY DO NOT IRON</p>	<p>RINSE OUT IN COLD WATER WARM MACHINE WASH DO NOT SOAK OR BLEACH MAY BE TUMBLE DRIED WARM</p>

J – Lined Jackets

J1	J2	J3
<p>WASH SEPARATELY GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH HANG TO DRY IN SHADE DO NOT TUMBLE DRY COOL IRON DRYCLEANABLE (P)</p>	<p>WASH SEPARATELY GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH HANG TO DRY IN SHADE DO NOT TUMBLE DRY DO NOT IRON DO NOT DRYCLEAN (X)</p>	<p>WASH SEPARATELY GENTLE MACHINE WASH – WARM DO NOT SOAK OR BLEACH HANG TO DRY IN SHADE DO NOT TUMBLE DRY COOL IRON DRYCLEANABLE (P) REPROOF WHEN DRYCLEANED</p>
J4		
<p>WIPE OUTER SURFACE CLEAN WITH A DAMP CLOTH DO NOT WASH ALLOW TO DRY AWAY FROM DIRECT HEAT DO NOT TUMBLE DRY DO NOT IRON DO NOT DRYCLEAN (X)</p>		

U - Workwear

U1	U2
<p>WASH SEPARATELY WARM MACHINE WASH DO NOT BLEACH MAY BE TUMBLE DRIED WARM WARM IRON IF REQUIRED DRYCLEANABLE (P)</p>	<p>GARMENT IS DESIGNED FOR ONE-TIME USE ONLY DO NOT WASH DO NOT IRON DO NOT DRYCLEAN (X)</p>

Section Nine: Labelling Requirements

What is this section about?

Section Nine contains details of the formats and placement requirements for sew-in labels.

What should it be used for?

It should be used by Suppliers as a reference during manufacture of garments to ensure that all labels conform to The Warehouse's specifications, and also to New Zealand compliance standards.

Refer to your TWL spec, or contact your TWL QA technician, for any special instructions regarding label positioning.

Label instructions within the TWL spec will take precedence over the guidelines provided in this manual.

What does it contain?

- General label positions
 - Low Fire label positions
 - Caution label positions
 - High Fire label positions
 - High Fire Danger artwork.
-

Please note

An important aspect of all labelling is that the Country of Origin label is situated:

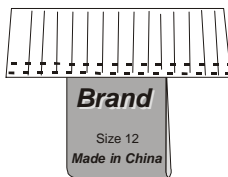
- On the upper face of a label that is in the centre back neck of garments for the upper body, or
 - In the centre back waist of garments for the lower body.
-

9a: General Label Positions

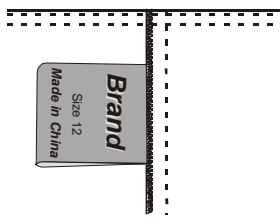
When to use these positions

Please use the label positions shown below for adultswear, childrenswear and infants outerwear styles that are **not** required to comply with AS/NZS 1249, and therefore do not require fire danger labelling,

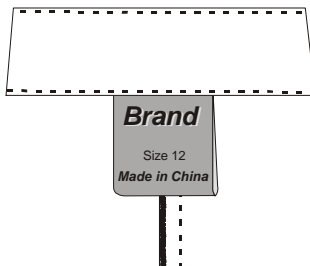
Sewn into garments



For tops, t-shirts, dresses and all garments worn on the upper body the label must be in the centre back neck



For pants, shorts, skirts and all garments worn on the lower body, where there is no waistband, the label must be in the centre back seam, as close as possible to the waist edge



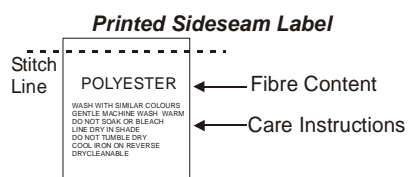
For pants, shorts, skirts and all garments worn on the lower body, where there is a waistband, the label must be in the centre back waist seam

Continued on next page

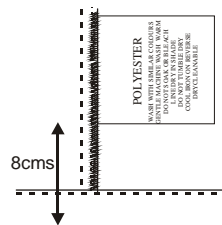
9a: General Label Positions, Continued

When to use this For brand labels without a Fibre Content or Care Instruction on the reverse side of the label, a separate printed label will be required in the side seam.

Sewn into garments



Printed Care/Content label in side seam
To be used with each of the 3 combinations on the previous page



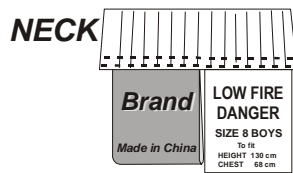
For tops, t-shirts, dresses, jackets and skirts and all garments worn on the upper body the label must be in the left hand side seam @ 8cms above hem.

For all pants and shorts the label must be in the left hand side seam @ 8cms below waist seam, or as close as possible below the base of the pocketbag.

9b: Low Fire Label Positions

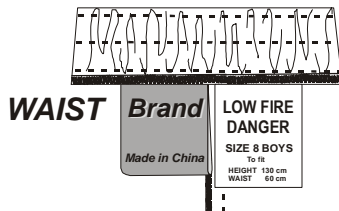
Labelling guidelines

All size labels and Fire Danger labels must be as per the artwork in section 9d.



Sewn into garments

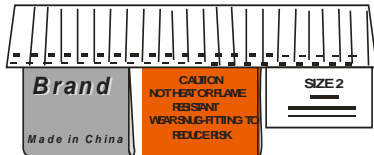
For pyjama tops or nightdresses the printed LOW FIRE DANGER and SIZE label must be in the centre back neck. Brand and Country of origin must be directly alongside the printed label.



For pyjama pants the printed LOW FIRE DANGER and SIZE label must be in the centre back waist. Brand and Country of origin must be directly alongside the printed label.

Caution Label Positions

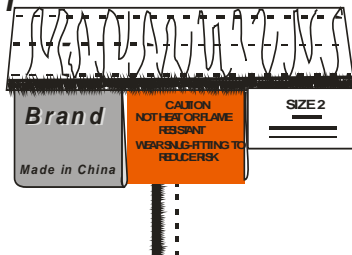
NECK



Sewn into garments

For pyjama tops or nightdresses the printed CAUTION and SIZE label must be in the centre back neck. Brand and Country of origin must be directly alongside the printed label.

WAIST



For pyjama pants the printed CAUTION and SIZE label must be in the centre back waist. Brand and Country of origin must be directly alongside the printed label.

9c: High Fire Label Positions

Labelling guidelines

All size labels and Fire Danger labels must be as per the artwork in section 9d.

NECK



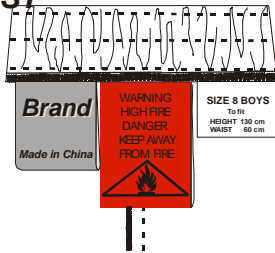
Sewn into garments

For pyjama tops, nightdresses or dressing gowns the printed HIGH FIRE DANGER label must be in the centre back neck.

Printed SIZE label must be directly alongside the FIRE DANGER label.

Brand and Country of origin must be directly alongside the above 2x labels.

WAIST



For pyjama pants the printed HIGH FIRE DANGER label must be in the centre back waist.

Printed SIZE label must be directly alongside the FIRE DANGER label.

Brand and Country of origin must be directly alongside the above 2x labels.

9d: High Fire Danger Label Artwork

LABEL IS PRINTED ON POLYESTER SATIN RIBBON



LABEL COLOUR REFERENCE

USE EITHER BRITISH STANDARD BS 381C: 1988
(EQUIV. AS 2700, NZ.STANDARD NZS 7702: 1989) OR,
PANTONE COLOUR MATCHING SYSTEM

BRITISH STANDARDS COLOUR No.

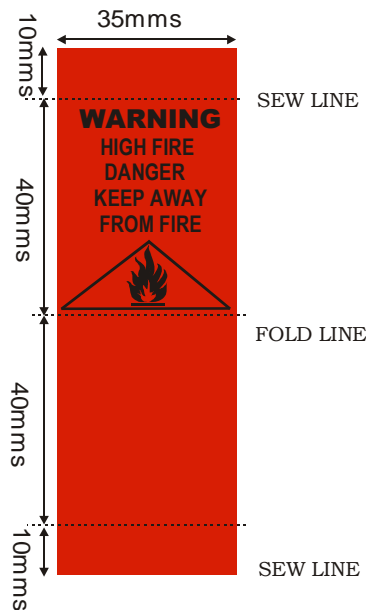


537
SIGNAL RED

PANTONE COLOUR No.



PMS485 C



NOTE

THIS LABEL IS NOT PRINTED TO SCALE. DO NOT USE THE ACTUAL SIZE OF THIS LABEL AS A GUIDE FOR LABEL PRODUCTION.

Continued on next page

9d: High Fire Danger Label Artwork, Continued

AS/NZS Standard

The following is taken from Section 5.5 of the 2003 AS/NZS standard and describes the requirements for wording on Fire Hazard labels:

The wording shall be clearly legible in upper case, monoline, geometric lineale typeface of medium width characters not less than 2.5 mm high (see Notes). The word 'warning' shall be in bold, upper case typeface.

NOTES: Typeface descriptions for 'monoline', 'geometric', 'lineale' and 'medium width' are as follows:

- (i) *Monoline – any typeface in which all strokes of the letters are apparently of equal thickness.*
- (ii) *Geometric – lineale typefaces constructed on simple geometric shapes, such as circles or rectangles.*
- (iii) *Lineale – typefaces without serifs (formerly called 'sans-serif')*
- (iv) *Medium width – the width which the manufacturer (of the type) puts forward under the name of the family (i.e. the group of type faces which are derived from one basic design) as the normal width from which variants in the family have been or may be derived.*

The design of the symbol used on labels for Category 4 garments [High Fire] shall be as shown in Table 5.1, Column 3 and the triangle shall not be less than 17 mm in height and not less than 33 mm length at the base.

The wording on labels for Category 1,2, and 3 garments [Low Fire] shall be black on a white label. The words may appear on more than one line.

The wording and the symbol on labels for Category 4 garments [High Fire] shall be black on a red label.

The red label colour [High Fire] shall be R13 Signal Red, as specified in AS 2700 or 537 Signal Red as specified in NZS 7702. When visually rated with the Grey Scale for assessing change in colour, complying with ISO 105 Part A02, the numerical rating of colour difference between the actual colour and the specified colour shall not be less than four.

Section Ten: How To Measure

What is this section about?

The visuals in this section show the standard method of measuring used by The Warehouse QA.

What should it be used for?

This section should be used as a reference by Suppliers during the manufacture of garments, to ensure that they are measuring to The Warehouse's expectations.

The visuals are coded with a reference number that relates to the reference code on The Warehouse specifications. Follow the arrows together with the brief description as the method for measuring.

What does it contain?

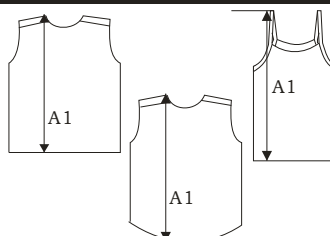
This section contains measurement directions for:

- Lengths
 - Bust or Chest
 - Waists
 - Hips
 - Hems
 - Shoulders and Yokes
 - Sleeve lengths
 - Armdrops and Straps
 - Sleeve Circumferences
 - Necklines
 - Cuffs
 - Collars, Neckbands and Hoods
 - Rises
 - Leg Circumferences
 - Pocket Widths and Positions
 - Infantswear
 - Maternity
 - Swimwear
 - Miscellaneous other measurements.
-

10a: How to Measure: Lengths (A)

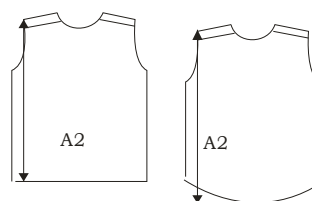
A1 Total length - HSP to hem

On the front, measure from the high shoulder point where the shoulder seam meets the neck seam, or at the neck edge. If garment has forward shoulder seams, measure at the point where the garment naturally folds. This is measured to the hem. If garment has shaped hem, measure to the point which is level with the centre front.



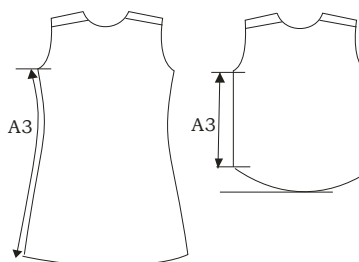
A2 Total length - LSP to hem

On the front, measure from the low shoulder point where the shoulder seam meets the armhole. If garment has forward shoulder seams, measure at the point where the garment naturally folds. This is measured to the hem. If garment has shaped hem, measure to the point which is level with the centre front.



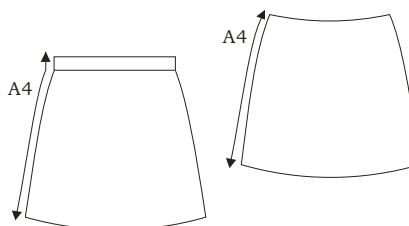
A3 Sideseam length (*garments for upper body*)

Measure on sideseam from underarm point to hem.



A4 Sideseam length (*skirts*)

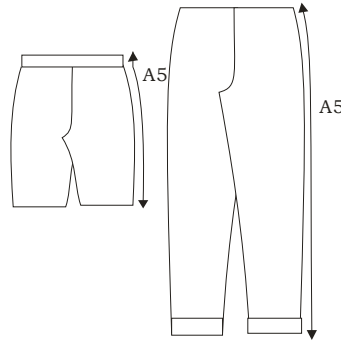
Measure on sideseam from waist edge to hem. If garment has a waistband, then measure from the top edge of the waistband.



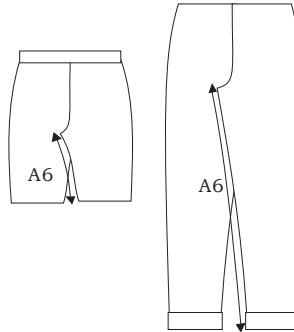
Continued on next page

10a: How to Measure: Lengths (A), Continued

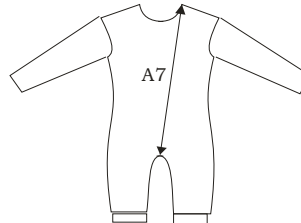
- A5 Outleg length** (*shorts and pants*)
Measure on sideseam from waist edge to hem. If garment has a waistband, then measure from the top edge of the waistband. Include cuffs if the garment has them.



- A6 Inleg length** (*shorts and pants*)
Measure on inleg seam from junction with crotch seam to hem. Include cuffs if the garment has them.



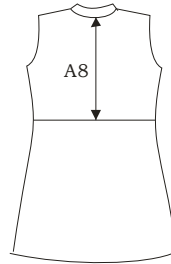
- A7 Vertical trunk**
Measure from high shoulder point where shoulder seam meets the neck seam, to the centre of the crotch (with crotch done up if with opening)



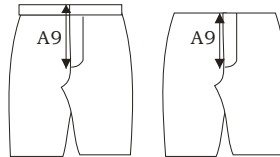
Continued on next page

10a: How to Measure: Lengths (A), Continued

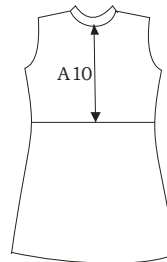
- A8 Centre back length to waist**
Measure from neck seam to the waist seam, or to the narrowest point which is the waist shaping.



- A9 Fly length**
Measure on the crotch seam from the waistband top edge, or, the waist edge to the base of the fly stitching.



- A10 Centre front neck to waist**
Measure from neck seam to the waist seam, or to the narrowest point which is the waist shaping.

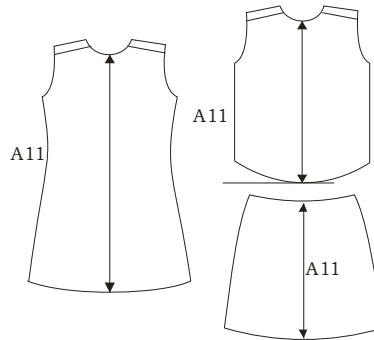


Continued on next page

10a: How to Measure: Lengths (A), Continued

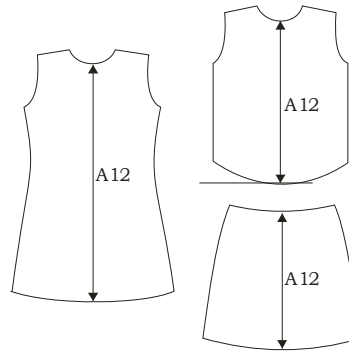
A11 Centre front length

On the front, measure straight from centre front neck seam to centre front hem. If garment is a skirt, measure from centre front waist to hem.



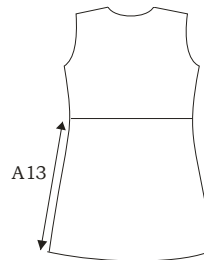
A12 Centre back length

On the back, measure straight from centre back neck seam to centre back hem. If garment is a skirt, measure from centre back waist to hem.



A13 Skirt length on dress

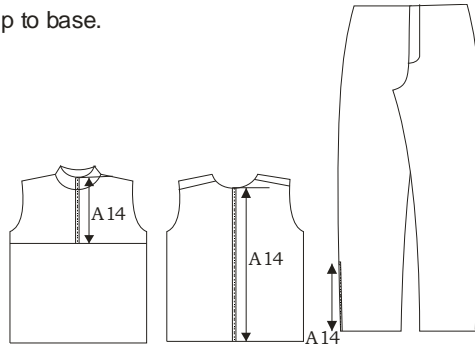
Measure from seam to hem.



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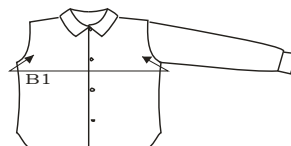
10a: How to Measure: Lengths (A), Continued

- A14 Zip length**
Measure from top of zip to base.

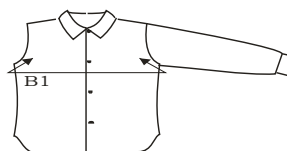


10b: How to Measure: Bust or Chest (B)

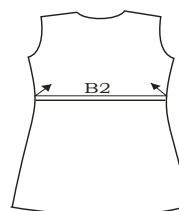
- B1 Chest circumference for Adults only**
Measure from 2.5cm below underarm / top of the sideseams, measure from sideseam to sideseam and double the measurement.



-
- B1 Chest circumference for Infants and Children only**
Measure from underarm exactly at the top of the sideseams, measure from sideseam to sideseam and double the measurement.

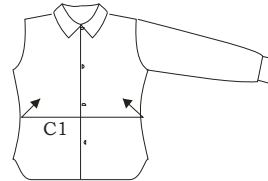


-
- B2 Bodice circumference**
Measure on seam from side to side seam and double the measurement.

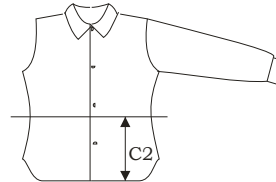


10c: How to Measure: Waists (C)

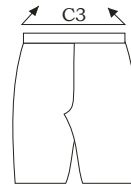
- C1 Waist circumference** (*garments for upper body*)
Measure from sideseam to sideseam at the narrowest point and double the measurement. If there is no waist seam, the size chart must have a reference point for the waist shaping position (refer to C2)



- C2 Waist position from hem** (*garments for upper body*)
Measure from hem to the narrowest point for the waist shaping position



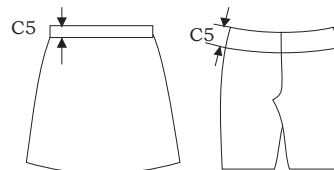
- C3 Waist circumference** (*skirts, shorts & pants*)
For garments with a rectangular waistband, measure from side to side through the centre of the waistband and with the waistband firmly pulled flat



- C4 Waist circumference** (*skirts, shorts & pants*)
For garments without waistband measure from side to side on the waist edge and then double the measurement for the circumference



- C5 Waistband depth** (*skirts, shorts & pants*)
Measure from top edge to waist seam



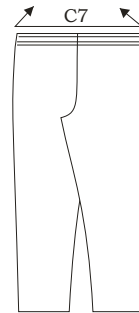
Continued on next page

10c: How to Measure: Waists (C), Continued

- C6 Waist circumference - elasticated/relaxed**
Measure across the garment from side to side at the centre of the elastic (with the elastic relaxed) and double the measurement



- C7 Waist circumference - elasticated/stretched flat**
Measure across the garment at the centre of the elastic, pulling the garment out so that the fabric is flat, and double the measurement.



- C8 Waist circumference - elasticated/stretched extreme**
Measure across the garment at the centre of the elastic, pulling the garment out so that the fabric is stretched, and double the measurement. This measurement ensures that the garment will stretch out enough to fit over the hips. The stitching must sustain this stretching without cracking.

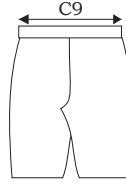


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10c: How to Measure: Waists (C), Continued

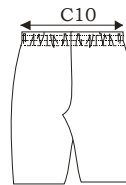
C9 Front waist width

Measure across the garment from side to side at the centre of the elastic (with the elastic relaxed)



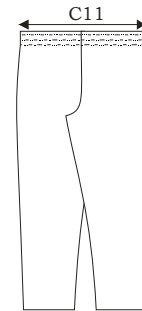
C10 Back waist width - elasticated/relaxed

Measure across the garment from side to side at the centre of the elastic (with the elastic relaxed)



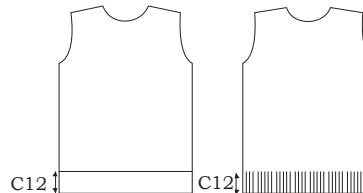
C11 Back waist width - elasticated/stretched flat

Measure across the garment at the centre of the elastic, pulling the garment out so that the fabric is flat.



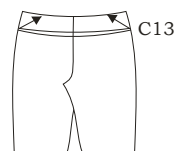
C12 Waistband depth (garments for upper body)

Measure from seam to lower edge. If garment is knit, measure from top rib to lower edge.



C13 Waist circumference @ seam (skirts, shorts & pants)

For garments without waistband measure from side to side on the waist seam and then double the measurement for the circumference

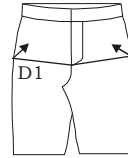


10d: How to Measure: Hips (D)

D1 Hip circumference at base of fly

(skirts, pants and shorts)

This is measured at the base of the fly. Lay garment flat with the front waist naturally curving down below the back waist. Measure from side to side following the front waist shaping (this results in a curving 'V' shape as indicated by the arrow). The measurement from side to side is then doubled to give the circumference.



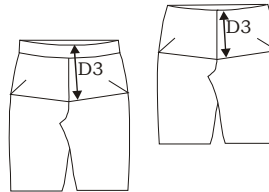
D2 Hip circumference (skirts, pants and shorts)

This is measured at a set distance from the waist edge - for the position, refer to D3. Lay garment flat with the front waist naturally curving down below the back waist. Measure from side to side following the front waist shaping (this results in a curving 'V' shape as indicated by the arrow). The measurement from side to side is then doubled to give the circumference.



D3 Hip position from waist (skirts, pants and shorts)

Measure from centre front waist edge to the position where the hip circumference is measured. Garments without waistband are measured from the edge, and garments with a waistband are measured from the top edge of the waistband.



Continued on next page

10d: How to Measure: Hips (D), Continued

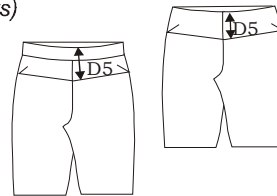
D4 High hip circumference (*skirts, pants and shorts*)

This is measured at a set distance from the waist edge - for the position, refer to D5. Lay garment flat with the front waist naturally curving down below the back waist. Measure from side to side following the front waist shaping (this results in a curving 'V' shape as indicated by the arrow). The measurement from side to side is then doubled to give the circumference. The purpose behind this measurement is to give an indication of the hip shaping required.



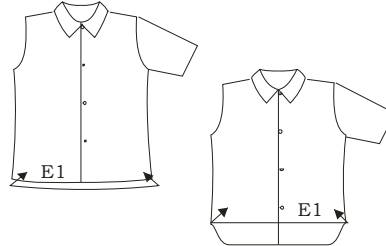
D5 High hip position from waist (*skirts, pants and shorts*)

Measure from centre front waist edge to the position where the hip circumference is measured. Garments without waistband are measured from the edge, and garments with a waistband are measured from the top edge of the waistband.

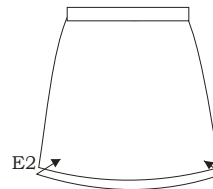


10e: How to Measure: Hems (E)

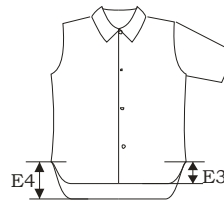
- E1 Hem circumference** (for tops, shirts, jackets)
Measure across the hem edge on garments without a tail drop. For tops & shirts that have a tail drop, measure straight across the garment at the base of the sideseams and double the measurement.



-
- E2 Hem circumference** (for skirts and dresses)
Measure from side to side along the hem edge and double the measurement.



-
- E3 Front tailedrop**
Measure in a straight line from the base of the sideseam to a point that is level with the centre front.
- E4 Back tailedrop**
Measure in a straight line from the base of the sideseam to a point that is level with the centre back.



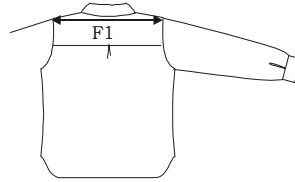
-
- E5 Side seam splits**
Measure in a straight line from the top of vent opening to hem edge.



10f: How to Measure: Shoulders and Yokes (F)

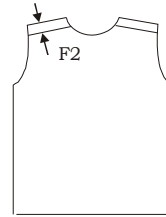
F1 Across shoulder

At the back of the garment, measure straight across from armhole seam to armhole seam. If garment has forward shoulder seams then the garment should be measured where it naturally folds.



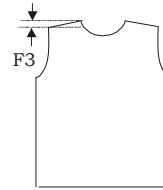
F2 Shoulder seam forward

If garment has shoulder seams that are forward of the natural shoulder line, lay the garment flat and measure from where the garment naturally folds, and measure from the fold edge to the shoulder seam.



F3 Shoulder drop

This measurement determines the angle of the shoulder line. It is the difference in depth between the neck end of the shoulder and the armhole end of the shoulder. It is critical as it affects the manner in which the garment hangs on the body. Measure straight between the high shoulder point and the low shoulder point for the slope of the shoulder. If garment has forward shoulder seams, measure at the point where the garment naturally folds.

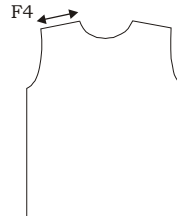


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10f: How to Measure: Shoulders and Yokes (F), Continued

F4 Shoulder seam length

Measure from point where shoulder seam commences at the neck, to the point where it finishes at the armhole.



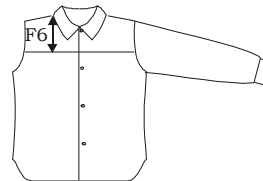
F5 Back yoke depth

At the centre back, measure from the neck seam to the yoke seam



F6 Front yoke depth

Measure from the high shoulder point to the yoke seam



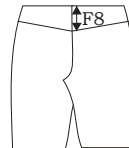
F7 Front yoke depth at centre front (skirts, shorts & pants)

At the centre front, measure from the waist seam to the yoke seam.



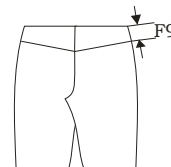
F8 Back yoke depth at centre back (skirts, shorts & pants)

At the centre back, measure from the waist seam to the yoke seam.



F9 Yoke depth at side seam (skirts, shorts & pants)

At the side seam, measure from the waist seam to the yoke seam.



10g: How to Measure: Sleeve Lengths (G)

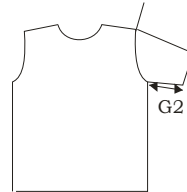
G1 Short sleeve length from LSP

Measure from the low shoulder point, along the centre of the sleeve, to the end of the sleeve.



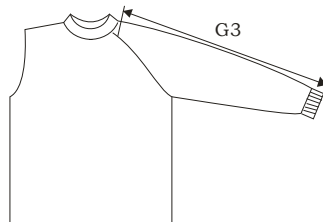
G2 Short sleeve seam length from underarm

Measure from the bottom of the armhole, along the underarm seam, to the end of the sleeve.



G3 Sleeve length from HSP (raglan sleeves)

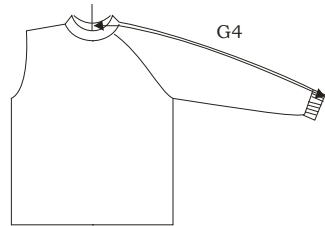
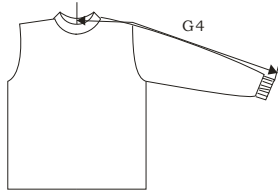
From the high shoulder point at the neckline or neck seam, measure along the centre of the sleeve, to the end of the sleeve (including the cuff).



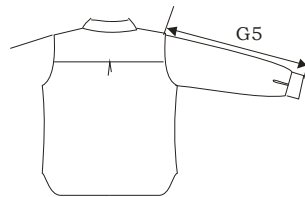
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10g: How to Measure: Sleeve Lengths (G), Continued

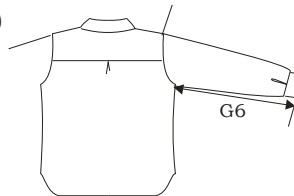
- G4 Sleeve length from centre back** (*all sleeves*)
From the centre back neck, measure along the centre of the sleeve, to the end of the sleeve (including the cuff).



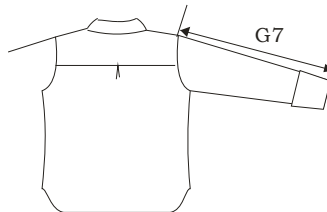
-
- G5 Long sleeve length from LSP** (*set-in sleeves*)
Measure from the low shoulder point, along the centre of the sleeve, to the end of the sleeve (including the cuff).



-
- G6 Long sleeve seam length from underarm** (*all sleeves*)
Measure from the bottom of the armhole, along the underarm seam, to the end of the sleeve (including the cuff).



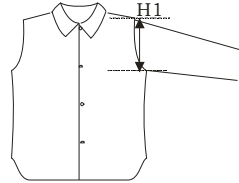
-
- G7 Sleeve length - cuff turned back** (*all sleeves*)
Measure from the low shoulder point, along the centre of the sleeve, to the end of the cuff turned back (not including cuff length)



10h: How to Measure: Armdrops and Straps (H)

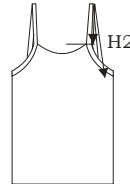
H1 Armdrop

Measure straight from where the shoulder seam meets the armhole to a point level with the bottom of the armhole. If garment has forward shoulder seams, measure at the point where the garment naturally folds.



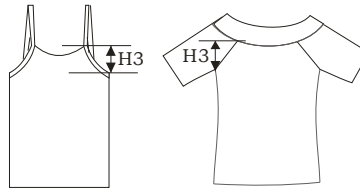
H2 Strap length

Measure from where the strap is joined to the front body to where it joins the body at the back.



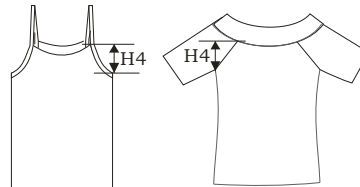
H3 Front armdrop

Measure straight from the base of the strap to the top of the sideseam. If raglan sleeve, measure straight from bottom armhole to a point level where the raglan sleeve meets neckline seam.



H4 Back armdrop

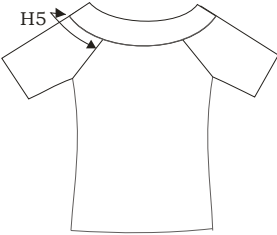
Measure straight from the base of the strap to the top of the sideseam. If raglan sleeve, measure straight from bottom armhole to a point level where the raglan sleeve meets neckline seam.



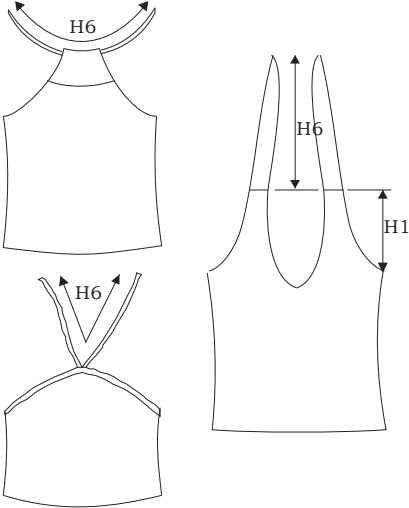
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10h: How to Measure: Armdrops and Straps (H), Continued

H5 Sleeve head depth
Measure on neck line seam from front raglan seam to back raglan seam.



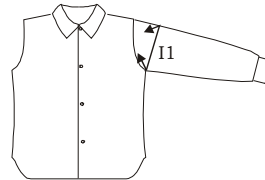
H6 Halter neck strap length
Measure length from end to end. If garments have straps attached at shoulders seam, measure from shoulder seam to end.



10i: How to Measure: Sleeve Circumferences (I)

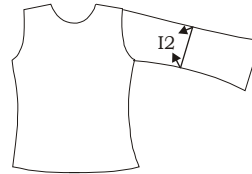
I1 Sleeve circumference at underarm

Measure across the sleeve at the top of the sideseam/underarm seam at a right angle to the centre folded edge of the sleeve, then double the measurement.



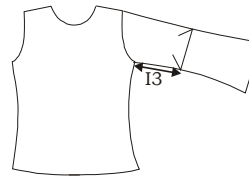
I2 Sleeve circumference at elbow

Measure across the sleeve at the elbow position (refer I3 for position) at a right angle to the centre folded edge of the sleeve, then double the measurement.



I3 Elbow from underarm

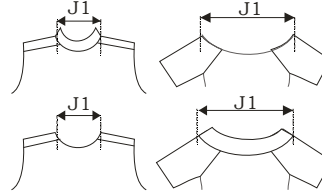
Measure from underarm, down the sleeve seam to the position for measuring elbow.



10j: How to Measure: Necklines (J)

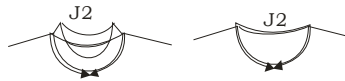
J1 Neck width (back)

Measure between the shoulder points where the shoulder seam meets the neck seam, or at the neck edge. If garment has forward shoulder seams, measure at the point where the garment naturally folds.



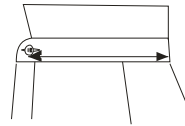
J2 Neck circumference (relaxed)

Measure on the seam or, on the neck edge if garment has no collar or band.



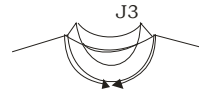
Shirt neck circumference (buttoned)

Collar buttoned up with button 1/3rd towards the front edge of the buttonhole. Measure through centre of the collar stand from the middle of the button to the fold edge and double the measurement.



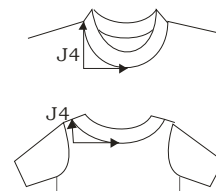
J3 Neck circumference (stretched)

Measure on the seam or, on the neck edge if garment has no collar or band and stretch the garment only as far as would be comfortable to pull over the head.



J4 Front neck drop

Lay a ruler between the shoulder points where the shoulder seam meets the neck seam, or at the neck edge. If garment has forward shoulder seams, lay the ruler at the point where the garment naturally folds. Measure from the edge of the ruler to the neck seam at the centre front.

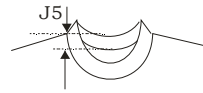


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10j: How to Measure: Necklines (J), Continued

J5 Back neck drop

Lay a ruler between the shoulder points where the shoulder seam meets the neck seam, or at the neck edge. If garment has forward shoulder seams, lay the ruler at the point where the garment naturally folds. Measure from the edge of the ruler to the neck seam at the centre back.



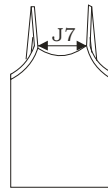
J6 Front neck width between straps

Measure across between the inside of the front straps



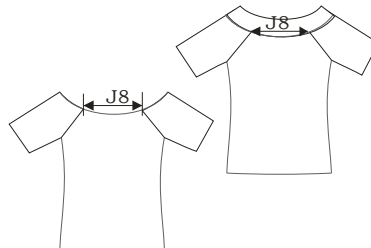
J7 Back neck width between straps

Measure across between the inside of the back straps



J8 Front neck width on raglan

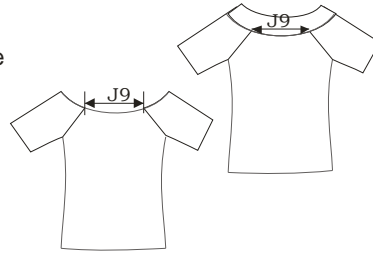
Measure across between front raglan seams where seams meet neckline seam or edge



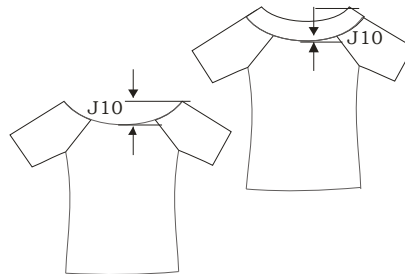
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10j: How to Measure: Necklines (J), Continued

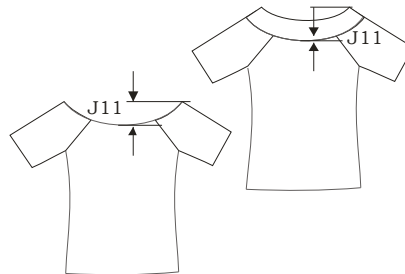
- J9 Back neck width on raglan**
Measure across between back raglan seams where seams meet neckline seam or edge



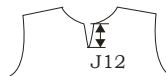
- J10 Front neck drop on raglan**
Lay a ruler between the shoulder points.
Measure from the ruler to the neck seam.



- J11 Back neck drop on raglan**
Lay a ruler between the shoulder points.
Measure from the ruler to the neck seam.

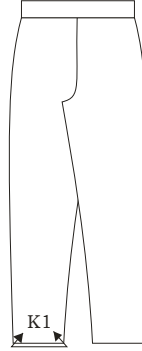


- J12 Neck opening depth**
Measure straight from neck seam or edge to bottom of opening.

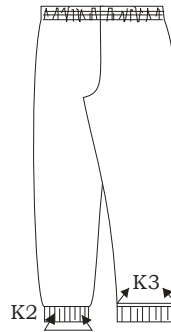


10k: How to Measure: Cuffs (K)

- K1 Hem circumference**
Measure across the hem edge and double the measurement.



- K2 Leg cuff circumference relaxed**
For leg hems with rib or elasticated cuffs.
Measure across the cuff from side to side at the centre of the cuff depth and double the measurement.



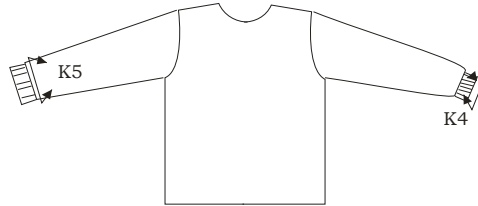
- K3 Leg cuff circumference stretched**
For leg hems with rib or elasticated cuffs.
Measure across the leg from side to side at the cuff seam, with the elasticsation being stretched out so that the fabric is flat, and double the measurement.

Continued on next page

10k: How to Measure: Cuffs (K), Continued

K4 Sleeve cuff circumference relaxed

For sleeve hems with rib or elasticated cuffs.
Measure across the cuff from side to side at the centre of the cuff depth and double the measurement.

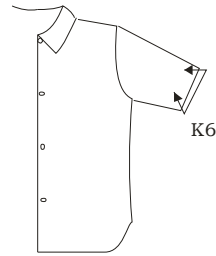


K5 Sleeve cuff circumference stretched-

For sleeve hems with rib or elasticated cuffs.
Measure across the leg or sleeve from side to side at the cuff seam, with the elastication being stretched out so that the fabric is flat, and double the measurement.

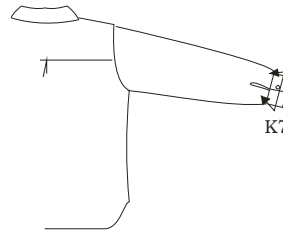
K6 Sleeve hem circumference - without cuffs

Measure across the hem edge on sleeves and double the measurement.



K7 Sleeve hem circumference - with cuffs

Measure across the cuff through the centre, with the cuff done up and double the measurement.

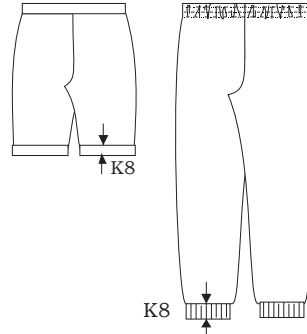


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10k: How to Measure: Cuffs (K), Continued

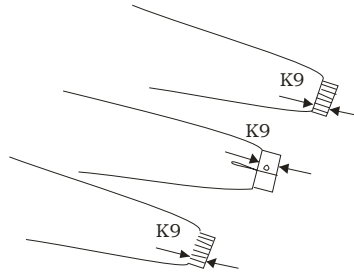
K8 Leg cuff depth

For turnup cuffs measure from outer edge to folded edge.
For separate cuffs measure from outer edge to seam.



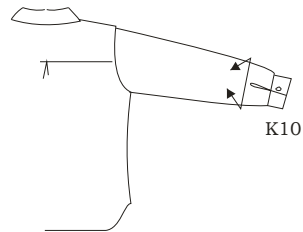
K9 Sleeve cuff depth

For separate cuffs measure from outer edge to seam. If garment is knit, measure from top rib to edge.



K10 Sleeve circumference at 6cms from cuff

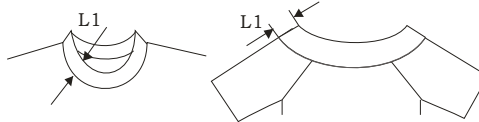
measure 6cm up from cuff, measure from side to side with the cuff done up and double the measurement.



101: How to Measure: Collars, Neckbands, Hoods (L)

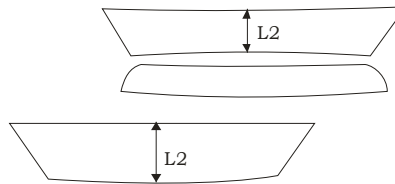
L1 Neck band depth

Measure from the outside edge to the seam line.



L2 Centre back collar depth

Measure from the outer edge to the stand or neck seam



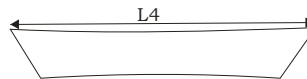
L3 Centre back collar stand depth

Measure from the collar seam to the neck seam



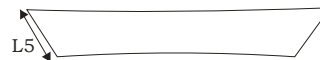
L4 Collar outer edge length

Measure from point to point down the edge



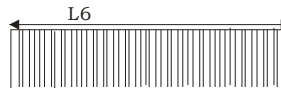
L5 Collar point length

Measure from point to the stand or collar seam



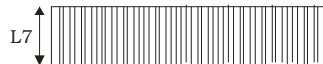
L6 Flat knit collar length

Measure from point to point on the outer edge.



L7 Flat knit collar depth

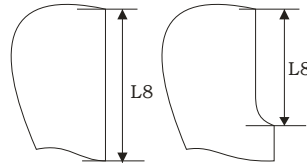
Measure from finished edge to seam edge



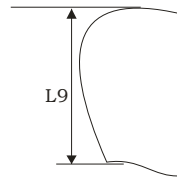
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10I: How to Measure: Collars, Neckbands, Hoods (L), Continued

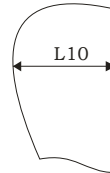
- L8 Hood depth at centre front**
Measure down the front edge from the top of the hood to the neck seam at the front



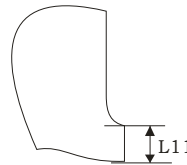
- L9 Hood depth at centre back**
Measure from a point level with the highest point of the hood to the neck seam at the centre back



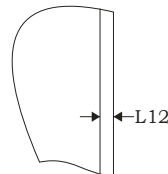
- L10 Hood width at widest**
Measure across the hood at the widest point from the centre back to the front edge



- L11 Centre front hood seam depth**
Measure down the front seam from outer edge hood opening to neck seam



- L12 Hood band width**
Measure from outer edge to seam

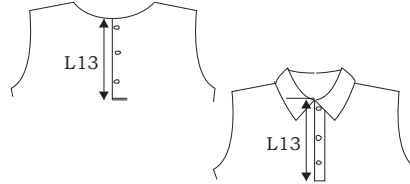


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10I: How to Measure: Collars, Neckbands, Hoods (L), Continued

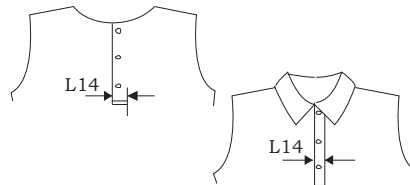
L13 Placket length

Measure from neck seam or edge to placket end



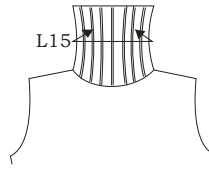
L14 Placket width

Measure from edge to seam or inside edge



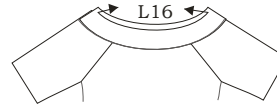
L15 Knit Collar circumference through centre

At half the collar depth, measure from edge to edge and then double the measurement.



L16 Neck circumference at edge

Measure on the edge of band



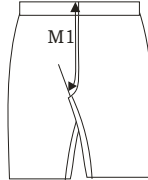
L17 Neck circumference on seam

Measure on the seam of band

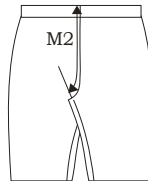


10m: How to Measure: Rises (M)

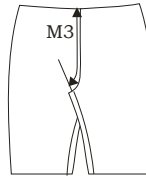
-
- M1 Front rise (with waistband)**
Measure on front crotch seam from top edge of waistband to the junction with the inleg seam.



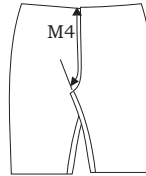
-
- M2 Back rise (with waistband)**
Measure on back crotch seam from top edge of waistband to the junction with the inleg seam.



-
- M3 Front rise (without waistband)**
Measure on front crotch seam from top waist edge to the junction with the inleg seam.



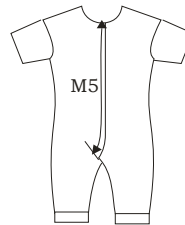
-
- M4 Back rise (without waistband)**
Measure on backcrotch seam from top waist edge to the junction with the inleg seam.



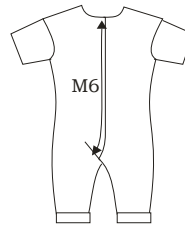
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10m: How to Measure: Rises (M), Continued

- M5 Front rise** (*all-in-one garments*)
Measure on front crotch seam from top neck edge, or seam, to the junction with the inleg seam.

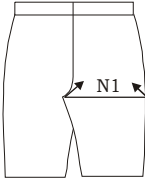


- M6 Back rise** (*all-in-one garments*)
Measure on back crotch seam from top neck edge, or seam, to the junction with the inleg seam.

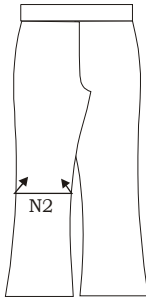


10n: How to Measure: Leg Circumferences (N)

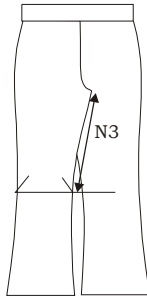
N1 Thigh circumference
Lay garment flat & measure across the leg at the top of the inleg seam then double the measurement.



N2 Knee circumference
Lay garment flat & measure across the knee at the position nominated in N3, then double the measurement.



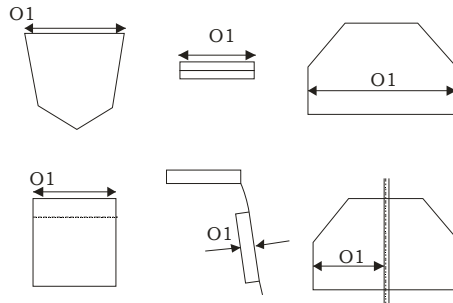
N3 Knee from crotch seam
Lay garment flat & measure down the inleg seam to the measurement on the spec for the knee position.



10o: How to Measure: Pocket Widths and Positions (O)

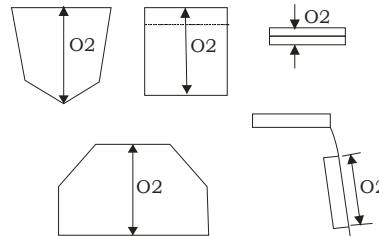
O1 Pocket width

Measure across the pocket at the widest point



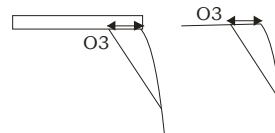
O2 Pocket depth

Measure down the pocket at the widest point. For welted or jet pockets the depth is the total depth of the two welts



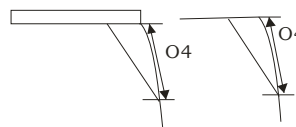
O3 Inset pocket width

Measure across at the waist seam or waist edge, the distance from the edge of the pocket opening to the sideseam



O4 Inset pocket depth

Measure down the sideseam from the waist seam or waist edge, the distance to the base of the pocket opening



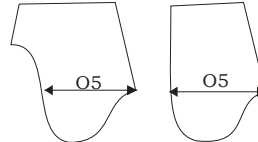
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10o: How to Measure: Pocket Widths and Positions (O),

Continued

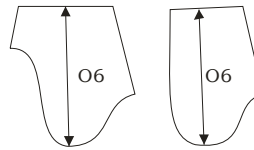
O5 Front pocketbag width

Measure across the pocket bag from front edge to the sideseam edge, at the widest point



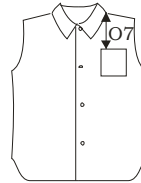
O6 Front pocketbag depth

Measure across the pocket bag from front edge to the sideseam edge, at the widest point



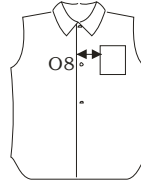
O7 Patch pocket from HSP

Measure from the high shoulder to the top of the pocket. If the shoulder seam is forward of the natural shoulder line, then the measurement is taken from the natural shoulder line



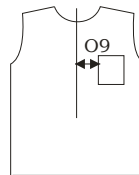
O8 Patch pocket from front edge

Measure from the front edge of the button opening to the front edge of the pocket.



O9 Patch pocket from centre front

Measure from the centre front to the front edge of the pocket.



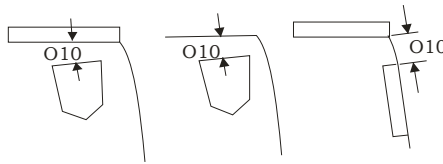
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10o: How to Measure: Pocket Widths and Positions (O),

Continued

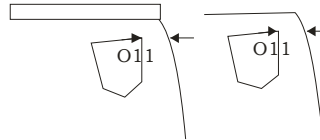
O10 Pocket from waist

Measure from the waist seam to the top edge of the pocket at the centre of the pocket. If the pocket is angled it must be as per the angle shown on the design sketch. If there is no waistband, measure from waist edge.



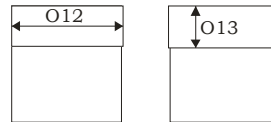
O11 Pocket from sideseam

Measure from side seam to the side edge of the pocket at the top of the pocket.



O12 Pocket flap width

Measure across the pocket flap at the widest point

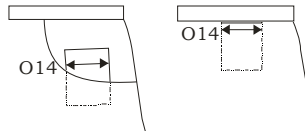


O13 Pocket flap depth

Measure across the pocket flap at the widest point

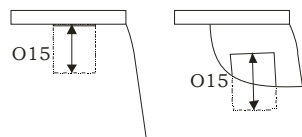
O14 Fob pocket width

Measure across the pocket at the widest point



O15 Fob pocket depth

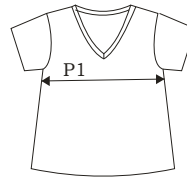
Measure across the pocket flap at the widest point



10p: How To Measure: Maternity (P)

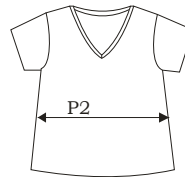
P1 Front chest width

On the front, 2.5cm below underarm / top of sideseam measure across from sideseam to sideseam



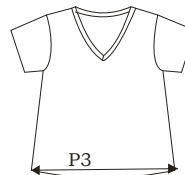
P2 Front waist width

On the front, measure from sideseam to sideseam. If there is no waist seam, the size chart must have a reference point for the waist shaping position (refer to P7)



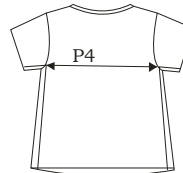
P3 Front hem width

On the front, measure from sideseam to sideseam straight across the garment at the base of the sideseams.



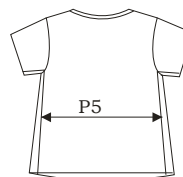
P4 Across back width

On the back, measure from underarm to underarm exactly at the top of sideseams.



P5 Back waist width

On the back, measure from sideseam to sideseam. If there is no waist seam, the size chart must have a reference point for the waist shaping position (refer to P7)

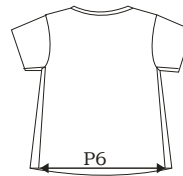


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10p: How To Measure: Maternity (P), Continued

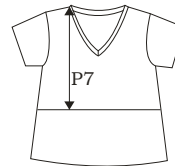
P6 Back hem width

On the back, measure from sideseam to sideseam straight across the garment at the base of the sideseams.



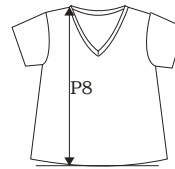
P7 Waist from HSP (*garments for upper body*)

On the front, measure straight from the HSP to the narrowest point for the waist shaping position.



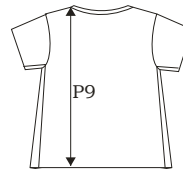
P8 Total length from HSP - Front

On the front, measure from the high shoulder point where the shoulder seam meets the neck seam, or at the neck edge. If garment has forward shoulder seams, measure at the point where the garment naturally folds. This is measured to the hem. If garment has shaped hem, measure to the point which is level with the centre front.



P9 Total length from HSP - Back

On the back, measure from the high shoulder point where the shoulder seam meets the neck seam, or at the neck edge. If garment has forward shoulder seams, measure at the point where the garment naturally folds. This is measured to the hem. If garment has shaped hem, measure to the point which is level with the centre back.

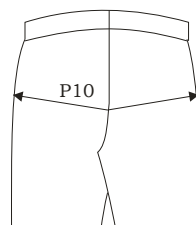


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10p: How To Measure: Maternity (P), Continued

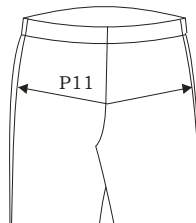
P10 Front hip width

On the front, this is measured at a set distance from the waist edge, for the position, refer to P12. Lay the garment flat, measure from sideseam to sideseam (in a 'V' shape as indicated by the arrow)



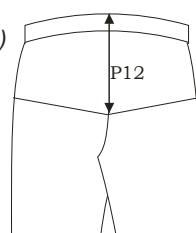
P11 Back hip width

On the back, this is measured at a set distance from the waist edge, for the position, refer to P13. Lay the garment flat, measure from sideseam to sideseam (in a 'V' shape as indicated by the arrow)



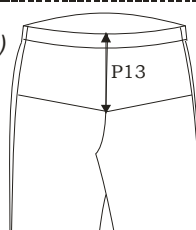
P12 Hip position from centre front waist (skirt, shorts and pants)

On the front, measure from the centre front waist edge to the position where the hip circumference is measured. Garment without waist is measured from the edge, and garments with a waistband are measured from the top edge of the waistband.



P13 Hip position from centre back waist (skirt, shorts and pants)

On the back, measure from the centre back waist edge to the position where the hip circumference is measured. Garment without waist is measured from the edge, and garments with a waistband are measured from the top edge of the waistband.

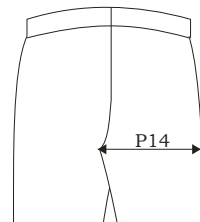


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10p: How To Measure: Maternity (P), Continued

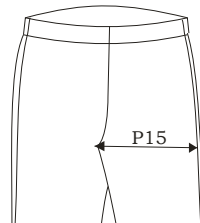
P14 Front thigh width

On the front, lay the garment flat and measure across the leg at the top of the inleg seam to the sideseam.



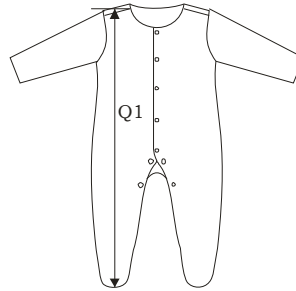
P15 Back thigh width

On the back, lay the garment flat and measure across the leg at the top of the inleg seam to the sideseam.

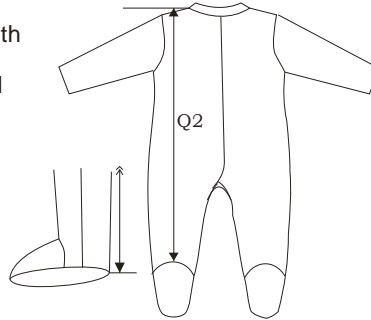


10q: How to Measure: Infants (Q)

- Q1 Total length from shoulder seam to toe**
On the front, measure straight with a point level with where the shoulder seam meets the neck seam, or at the neck edge to the centre of the toe seam.



- Q2 Total length from shoulder seam to heel**
On the back, measure straight with a point level with where the shoulder seam meets the neck seam, or at the neck edge to the centre of the heel seam.

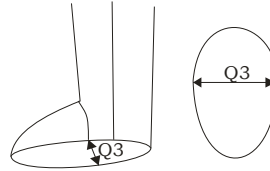


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10q: How to Measure: Infants (Q), Continued

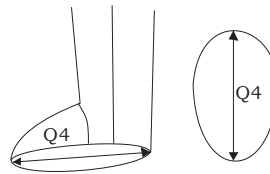
Q3 Base of foot width

Measure across from seam to seam at the widest part of the foot panel.



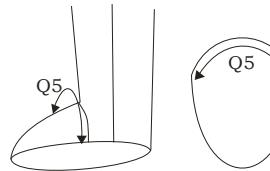
Q4 Base of foot length

Measure straight from toe seam to heel seam at the centre of the foot panel.



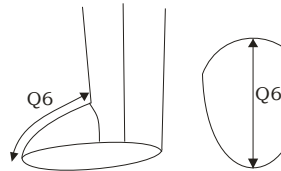
Q5 Upper foot width

On the upper foot panel, measure along the seam from side seam to side seam.



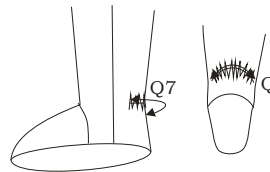
Q6 upper foot length

On the upper foot panel, measure straight from toe to foot width seam at the centre of the panel.



Q7 Ankle elastic length - relaxed

On the back leg, measure along elastic from where stitching start to where it finishes.

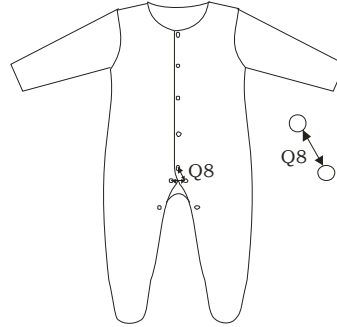


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10q: How to Measure: Infants (Q), Continued

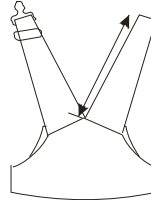
Q8 Dome distance at crotch

Measure from the centre of one dome to the centre of the next dome.



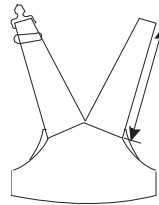
Q9 Strap length inner edge

Measure on the inside edge from where joined to bodice to the end of the finished strap



Q10 Strap length outer edge

Measure on the outer edge from where joined to bodice to the end of the finished strap

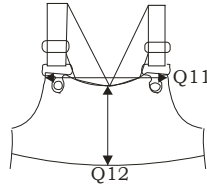


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10q: How to Measure: Infants (Q), Continued

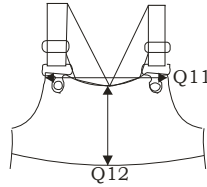
Q11 Overall bib front width

On the front, measure across at the top of bib from armhole edge to armhole edge.



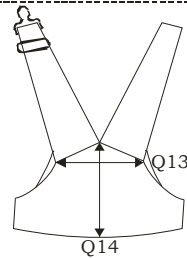
Q12 Overall bib front length

On the front, measure straight at the centre of bib from neck edge to seam line at bodice.



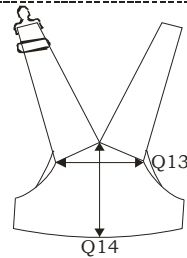
Q13 Overall bib back width

On the back, measure across at the top of bib from armhole edge to armhole edge.



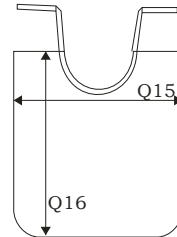
Q14 Overall bib back length

On the back, measure straight at the centre of bib from neck edge to seam line at bodice.



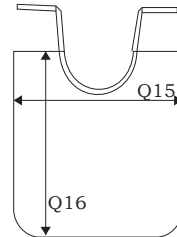
Q15 Bib width

Measure across bib from edge to edge at the widest part of bib.



Q16 Overall bib back length

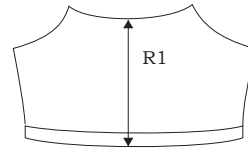
Measure straight from top edge to bottom edge at the longest part of bib.



10r: How to Measure: Underbra/Liner (R)

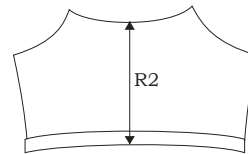
R1 Centre front length

On the front, measure from centre front neckline to centre front hem.



R2 Centre back length

On the back, measure from centre back neckline to centre back hem.



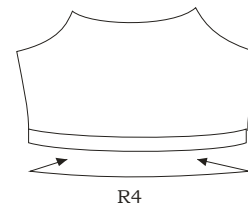
R3 Side seam length

Measure on sideseam from underarm point to hem.



R4 Base circumference - elasticated/ relaxed

Measure across the garment from side to side at the centre of the elastic (with the elastic relaxed) and double the measurement



10s: How to Measure: Swimwear (S)

S1 Front chest width

On the front, measure from underarm to underarm exactly at the top of sideseams.

S2 Front waist width

On the front, measure from sideseam to sideseam at the narrowest point.
If there is no waist seam, the size chart must have a reference point for the waist shaping position (refer to S3).

S3 Front waist position from top of sideseam

On the front, measure from the top of sideseam to the narrowest point for the waist shaping position.

S4 Front hip width

On the front, measure from the top of the leg depth from sideseam to sideseam.

S5 Crotch width at seam

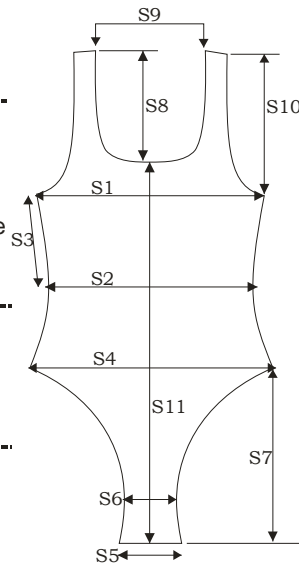
Measure across seam from edge to edge.

S6 Crotch width @ 6.5cm from seam

On the front, measure 6.5cm from the centre of crotch seam, then measure across from edge to edge.

S7 Front leg depth

Measure straight from the top of leg shaping at sideseam to a point level with crotch seam



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10s: How to Measure: Swimwear (S), Continued

S8 Front neck drop

Arrange the garment so that the neck shape looks true to the pattern shape. Lay a ruler between the shoulder points where the shoulder seam meets the neck edge. Measure from the edge of the ruler to the neck seam at the centre front.

S9 Front neck width

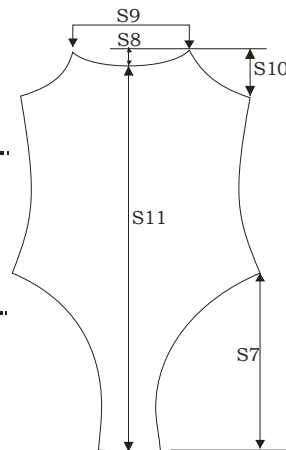
Arrange the garment so that the neck shape looks true to the pattern shape. Measure between the shoulder points where the shoulder seam meets the neck edge.

S10 Front armhole

Measure straight from where the shoulder seam meets the armhole to a point level with the bottom of the armhole .
If the garment has straps, measure straight from the base of the strap to the top of the sideseam.

S11 Centre front length

On the front, measure from seam edge centre front neck to centre crotch seam.



Continued on next page

10s: How to Measure: Swimwear (S), Continued

S12 Back width at top of sideseam

On the back, measure from underarm at the top of sideseams across to edge of back scoop.

S13 Across back width

On the back, measure across from the top of sideseam to top of side seam.

S14 Back waist width

On the back, measure from sideseam to sideseam at the narrowest point.
If there is no waist seam, the size chart must have a reference point for the waist shaping position (refer to S15).

S15 Back waist position from top of sideseam

On the back, measure from the top of sideseam to the narrowest point for the waist shaping position.

S16 Back hip width

On the back, measure from the top of the leg depth from sideseam to sideseam.

S17 Back width at 1/2 leg depth

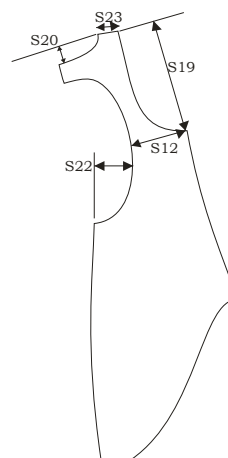
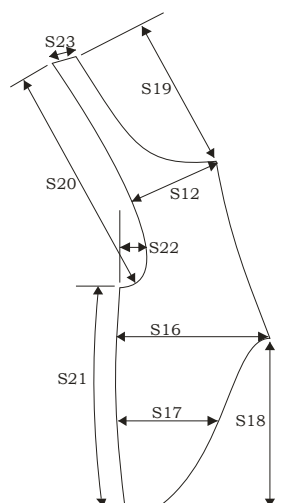
On the back, measure from seam to seam at half the distance of the back leg depth

S18 Back leg depth

Measure straight from the top of leg shaping at sideseam to a point level with crotch seam

S19 Back armhole depth

Measure straight from where the shoulder seam meets the armhole to a point level with the bottom of the armhole.
If the garment has straps, measure straight from the base of the strap to the top of the sideseam.



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10s: How to Measure: Swimwear (S), Continued

S20 Back neck drop

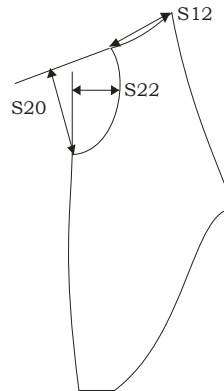
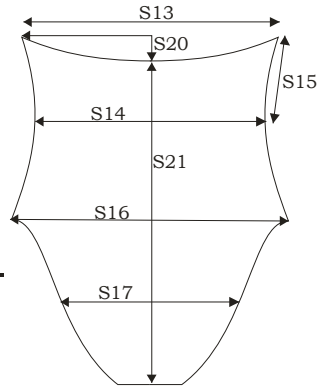
Measure straight from centre back neck to a level point where the shoulder seam meets the neck seam
If the garments has straps, measure straight from the base of the straps to centre back neck.

S21 Centre back length

On the back, measure from the seam edge centre back neck to centre crotch seam.

S22 Back scoop width

On the back, measure across from seam edge at widest point of scoop to a level point vertical to centre back.



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10s: How to Measure: Swimwear (S), Continued

S23 Strap width

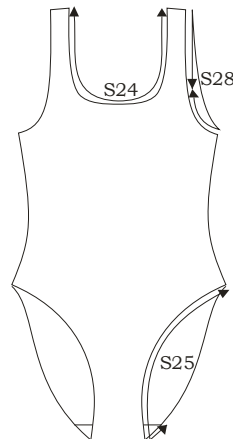
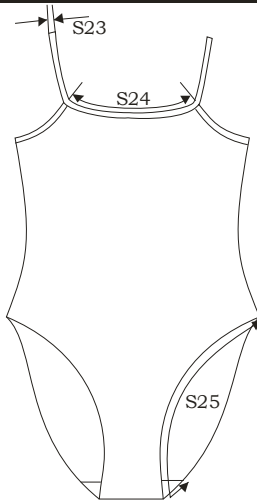
Measure shoulder seam from neck edge to armhole edge. If the garment has binding straps measure the width at any part of the strap.

S24 Front neck length - elasticated/ relaxed

Measure on the neck edge from shoulder seam to shoulder seam. If the garment has straps, measure on the edge from the base of the strap.

S25 Front leg length - elasticated/ relaxed

On the front, measure on the edge from sideseam to crotch seam.



Continued on next page

10s: How to Measure: Swimwear (S), Continued

S26 Back neck length - elasticated/ relaxed

On the back, measure on the edge from shoulder seam to shoulder seam.

S27 Back leg length - elasticated/ relaxed

On the back, Measure on the edge from sideam to crotch seam.

S28 Armhole circumference - elasticated/ relaxed

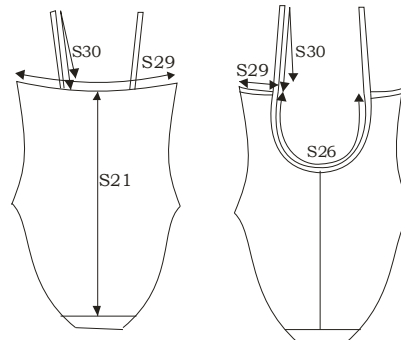
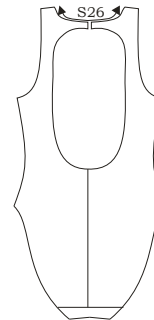
Measure on the edge of the armhole.

S29 Across back length - elasticated/ relaxed

On the back, measure on the edge from sideseam to sideseam. If the back has a back scoop measure from sideseam to strap edge.

S30 Strap length - elasticated/ relaxed

Measure from where the strap is joined at the front body to where it joins the body at the back.

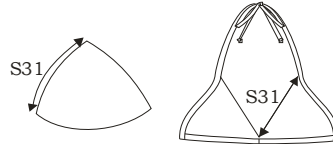


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10s: How to Measure: Swimwear (S), Continued

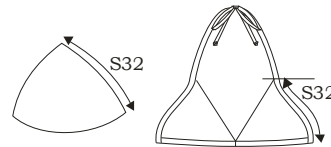
S31 Cup length at front relaxed

Measure on the edge from centre front to side edge where strap is joined to garment .



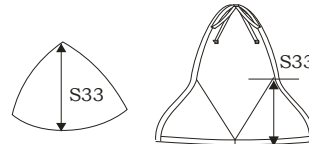
S32 Cup length at side relaxed

Measure along sideseam from base of cup to top of cup seam.



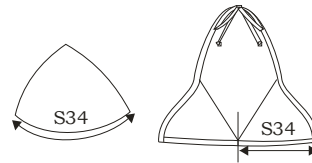
S33 Cup length

Measure straight from the top point of cup to a point level with the lowest edge of cup.



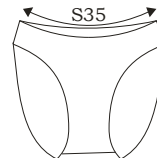
S34 Cup width at base

Measure along the edge of the base of the cup from centre front to side edge.



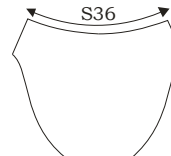
S35 Front waist circumference - elasticated/ relaxed

Measure along the front waist edge from sideseam to sideseam.



S36 Back waist circumference - elasticated/ relaxed

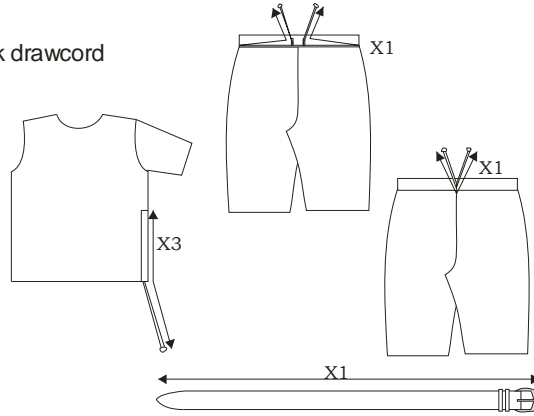
Measure along back waist edge from sideseam to sideseam.



10t: How to Measure: Miscellaneous (X)

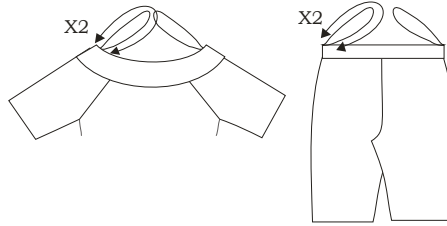
X1 Cord/ belt length

Measure from end to end. If mock drawcord still measure from end to end



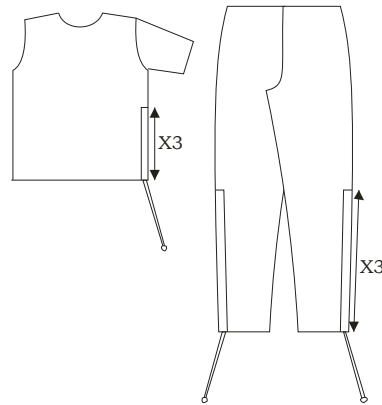
X2 Hanger tape length

Measure from end to end at attached seam.



X3 Tunnel length

Measure from hem edge to top of panel or stitching

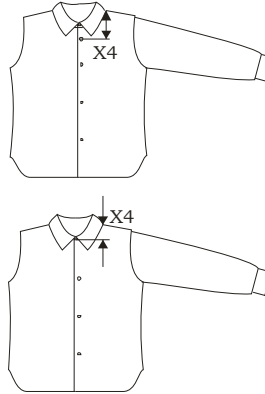


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10t: How to Measure: Miscellaneous (X), Continued

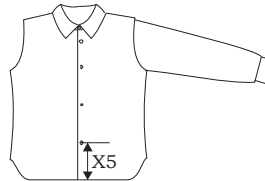
X4 Top button from HSP

Arrange the garment so that the neck shape looks true to the pattern shape. Lay a ruler between the shoulder points where the shoulder seam meets the neck seam, or at the neck edge. If garment has forward shoulder seams, lay the ruler at the point where the garment naturally folds. Measure from the edge of the ruler to the centre top button at the centre front.



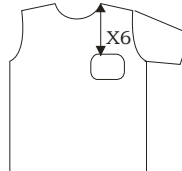
X5 Bottom button to hem

Measure from the centre of bottom button to hem edge.



X6 Embroidery from HSP

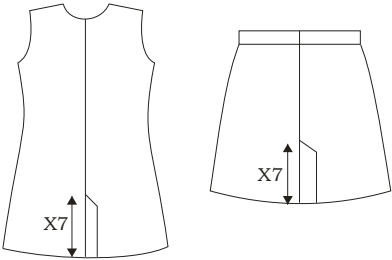
Measure straight from HSP to top edge of embroidery.



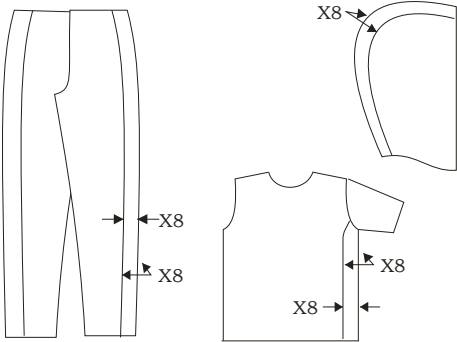
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10t: How to Measure: Miscellaneous (X), Continued

X7 Split length
Measure from hem to top opening



X8 Panel width
Measure across panel from seam to seam.



Section Eleven: Infants' and Childrenswear Size Charts and Special Instructions

What is this section about?

This section contains size charts for infants' and childrenswear, along with other information which is specific to the manufacture of infants' and childrenswear.

What should it be used for?

It should be used as a reference by Suppliers during the manufacture of any infants' or children's styles, to ensure that garments meet TWL expectations.

What does it contain?

- Special information on children's nightwear and limited daywear fire hazard compliance
 - Duty free maximum measurements
 - Childrenswear size charts
-

11a: Children's nightwear and limited daywear fire hazard compliance

AS/NZS 1249 The scope of the standard is not limited to only clothing that is specifically intended as nightwear – it also includes clothing that could *possibly* be worn to bed.

Supplier must check all infants and children's garments against these statutes to determine if compliance is required or not. This is important if the supplier is manufacturing to their own specification – the supplier's style and specification must be compliant with the standard.

Where determined by **AS/NZS1249** the supplier must have the fabric and trims tested to ensure that they comply with the standard. Refer to the Fabrics and Accessories section, Volume One, Section Two of this manual.

The Fire Danger label must be also be tested for durability

All labelling must be attached as per the standard. If the garments are to be sold pre-packaged in branded hanger packs the relevant Fire Danger label must be printed in a prominent position and size on the packaging. Refer to Labelling and Packaging section, section 4 of this manual for all labelling artwork and details.

11b: Duty free maximum measurements, Infants 0000-2 years

Summary

Childrenswear requires specific maximum measurements to qualify as duty free. Suppliers must ensure that all infants and children's wear (up to age 2 years) does not exceed the maximum measurements outlined on the following pages. This applies to pre-production as well as bulk garments. If bulk production garments measure over the maximum measurements and The Warehouse incurs duty on the order the Supplier will have breached their purchase order contract and may be liable for the duties payable.

Where infants' and children's garments must meet maximum measurements for both the duty constraints **and** the nightwear standard regulations the nightwear regulations will be considered to be the determining maximum measurements.

In this section

This section contains diagrammatic references for the maximum measurements for Infants 0000-2yrs.

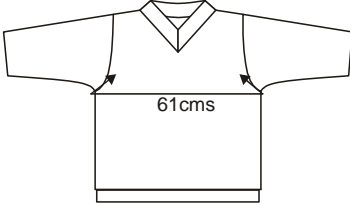
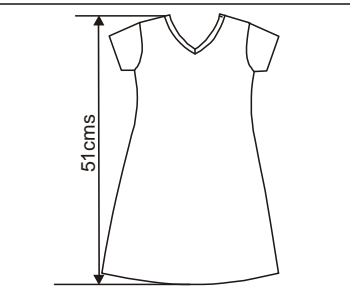
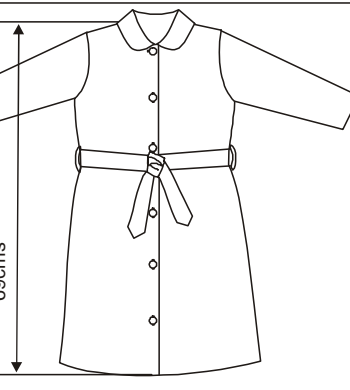
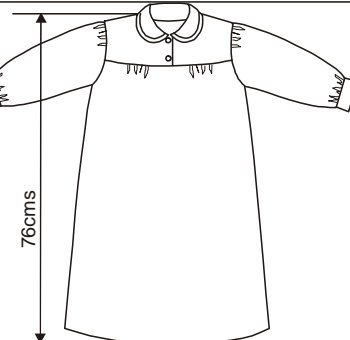
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11b: Duty free maximum measurements, Infants 0000-2 years, Continued

<p>Buster suits Tracksuits</p> <p>2 or 3 piece set Top max chest circ=61 cms Jacket max chest circ=72cms max length =46cms Trousers max outleg =56cms</p> <p>(Coat max chest circ=72cms max length =51cms)</p> <p>Coat not shown</p>	
<p>Buster suits Shorts sets</p> <p>2 piece set Top max chest circ=61 cms Shorts max waist/crotch/waist = 51cms</p>	
<p>Coats</p> <p>Max length =51cms</p>	
<p>Jackets</p> <p>Max chest circ = 72cms max length =46cms</p>	

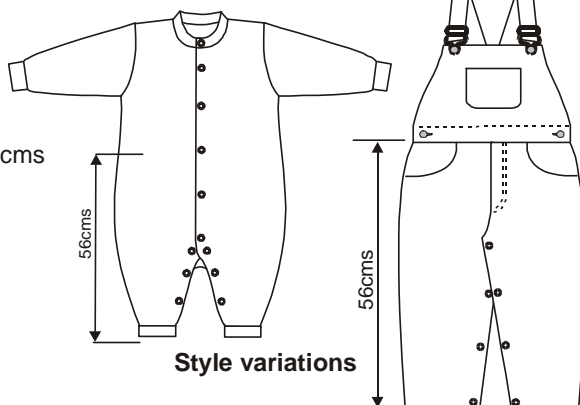
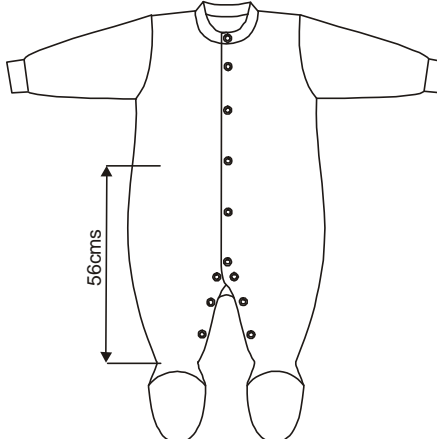
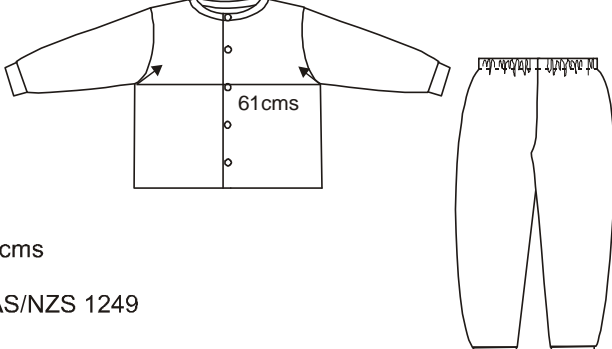
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11b: Duty free maximum measurements, Infants 0000-2 years, Continued

<p>Cardigans, Jerseys, Jumpers, Pullovers (& Skivvies w basques)</p> <p>(cannot be a sewn hem) Max chest circ=61cms</p>	
<p>Dresses</p> <p>Max length=51cms</p>	
<p>Dressing gowns</p> <p>Max length =69cms Must comply with AS/NZS 1249</p>	
<p>Nightdresses</p> <p>Max length =76cms Must comply with AS/NZS 1249</p>	

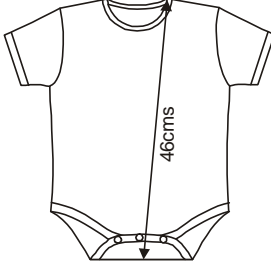
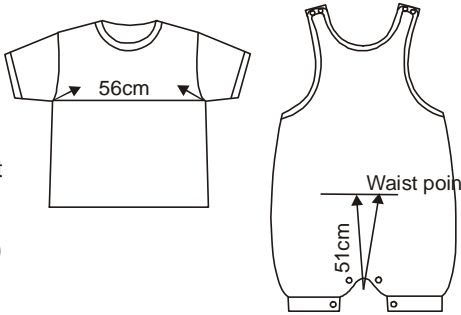
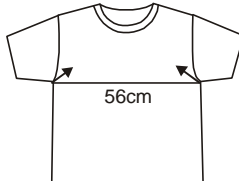
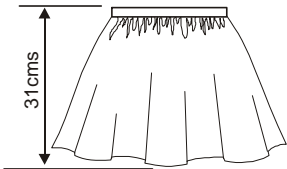
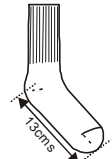
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11b: Duty free maximum measurements, Infants 0000-2 years, Continued

<p>Overalls</p> <p>Max outleg length from waist = 56cms</p>	 <p>56cms</p> <p>56cms</p> <p>Style variations</p>
<p>Peterkins</p> <p>Max length waist to foot = 56cms</p> <p>Must comply with AS/NZS 1249</p>	 <p>56cms</p>
<p>Pyjamas</p> <p>Max chest circ = 61cms</p> <p>Must comply with AS/NZS 1249</p>	 <p>61 cms</p>

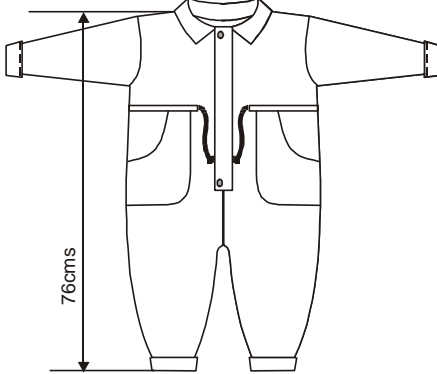
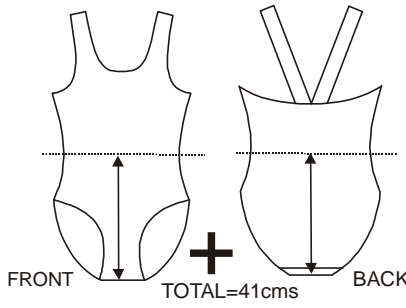
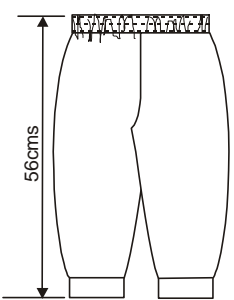
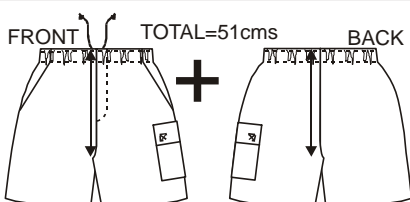
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11b: Duty free maximum measurements, Infants 0000-2 years, Continued

<p>Rompers</p> <p>Max vertical trunk=46cms</p> <p>Must comply with AS/NZS 1249</p>	
<p>Romper suits</p> <p>Top max chest circ= 56cms Romper max waist/crotch/waist = 51cms</p> <p>Must comply with AS/NZS 1249</p>	
<p>Tshirts</p> <p>Max chest circ =56cms</p>	
<p>Skirts</p> <p>Max length =31cms</p>	
<p>Socks</p> <p>Max foot length =13cms</p>	

Continued on next page

11b: Duty free maximum measurements, Infants 0000-2 years, Continued

<p>Snowsuits (Heavy garment intended for outerwear only - not garment that may be used as sleepsuit) Max length=76cms</p>	
<p>Swimsuits Max waist/crotch/waist=41cms</p>	
<p>Trousers (long) Max outleg length =56cms</p>	
<p>Trousers (short) Max waist/crotch/waist =51cms</p>	

11c: Infants' and Children's Size Charts

Guidelines

The measurements in these tables must be used on all infants and children's size labelling as identified on the label format in Section 9e.

These tables must also be followed for size designation on hang-sell packaging for garments with Fire Danger labelling. A size table stating the sizes relevant to the order must be printed on the reverse of hang-sell packaging.

Note 1: these tables are subject to change and Suppliers should always ensure that they are familiar with the current size designations. Please contact The Warehouse's QA team to confirm current tables.

Note 2: Adults' size tables are included in Section Twelve.

Infants' sizings

The table below provides sizing information for infants' sizes, from newborn to two.

SPEC SIZE	SZ0000	SZ000	SZ00	SZ0	1	01	02	2 1/2
LABEL SIZE	NB	000	00	0	1	1 1/2	2	2 1/2
TO FIT	NB	0-3M	3-6M	6-9M	9-12M	12-18M	18-24M	24-30M
Height cm	56	62	68	74	80	86	92	96
Chest cm	41	44	47	50	53	54.5	56	57
Waist cm	41	44	47	50	52	53	54	54.5

Boys' sizings

The table below provides sizing information for boys' sizes, from three to sixteen years.

SPEC SIZE	3	4	5	6	7	8	9	10	11	12	13	14	16
HEIGHT CM	100	108	115	120	125	130	135	140	145	150	155	160	170
CHEST CM	58	60	62	64	66	68	70	72	74	76	78	80	84
WAIST CM	55	56	57	58	59	60	62	64	66	68	70	72	76

Girls' sizings

The table below provides sizing information for girls' sizes, from three to sixteen years.

SPEC SIZE	3	4	5	6	7	8	9	10	11	12	13	14	16
HEIGHT CM	100	108	115	120	125	130	135	140	145	150	155	160	168
CHEST CM	58	60	62	64	66	68	71	74	77	80	83	86	92
WAIST CM	55	56	57	58	59	60	61	62	63	64	65	66	68

Section Twelve: Grading

What is this section about?

This section contains grading measurements for all clothing types, covering the various sizes.

What should it be used for?

It should be used as a reference by Suppliers during manufacture, to ensure that garments meet TWL expectations.

What does it contain?

This section contains:

- Infants' Grading Tables
 - Boys' Grading Tables
 - Girls' Grading Tables
 - Women's Grading Tables (including Size Charts)
 - Men's Grading Tables (including Size Charts).
-

12a: Infants' Grading Tables

Summary

The charts on the following pages show the grading measurements per size for Infants.

Dresses, Shirts, Tops, Jackets	0000-2	2-3
Body Circumferences		
Chest circumference	2	4
Waist circumference (non-elasticated)	2	3
Waist circumference (elasticated/relaxed)	2	3
Waist circumference (elasticated/stretched)	2	3
Hip circumference @ 14cms below waist	2	4
Hem circumference	2	4
Body Lengths		
Centre back neck to waist	1.5	0.5
Tops - HSP to hem	2	3
Tops - Side Seam	1.5	2.5
Dresses - HSP to hem	4.5	4
Dresses - Side Seam	4	3.5
Neck Dimensions incl. Hoods		
Front neck drop	0.25	0.25
Back neck drop	0	0.5
Neck width - HSP to HSP	0.25	0.5
Neck circ. relaxed/buttoned	1	1
Neck circ. stretched	1	1
Collar outer edge length	1	1
Hood width	0.5	0.5
Hood front depth	.75	0.5
Hood back depth	0.5	
Armholes & Straps		
Armdrop, measured straight	0.5	0.5
Strap length (front & back)	0.75	1
Sleeve Circumferences		
Sleeve circ. @ underarm	1	1
Short sleeve hem circ.	1	0
Long sleeve hem circ.(elasticated/relaxed)	0.5	0
Long sleeve hem circ.(elasticated/stretched)	0.5	0
Long sleeve hem circ. (non-elasticated)	0.5	0
Shoulders		
Shoulder drop		
Shoulder to shoulder	1	1.5
SET IN Sleeve Lengths		
Short sleeve length from LSP	1	1.5
Long sleeve length from LSP	2.5	2.5
Short sleeve seam length	0.5	1
Long sleeve seam length	2	2
RAGLAN Sleeve Lengths		
Short sleeve from HSP	1.25	2
Long sleeve length from HSP	2.75	3
Short sleeve from c/back	1.5	2.5
Long sleeve from c/back	3	3.25

Continued on next page

12a: Infants' Grading Tables, Continued

Skirts, Shorts, Pants, Rompers, Overalls	0000- 2 ½	2 ½ - 3
Body Circumferences		
Waist circumference (non-elasticated)	2	3
Waist circumference (elasticated/relaxed)	2	3
Waist circumference (elasticated/stretched)	2	3
Hip circumference	2	4
Hip from waist	0.5	0
Skirt hem circumference	2	4
Thigh circumference	1.5	1.5
Shorts Leg Circumferences		
Short shorts hem circumference	1.5	1.5
Knee length shorts hem circumference	1	1
Pants Hem Circumferences		
Pants hem circumference (non elasticated)	1	1
Pants hem circumference (elasticated/relaxed)	1	1
Pants hem circumference (elasticated/stretched)	1	1
Body Lengths		
Front rise length	1	-2
Back rise length	1	0
Short skirt	1.5	
Skirt side seam	3	
Short shorts outleg length	1.5	2
Short shorts inleg length	0.75	1.5
Knee length shorts outleg length	3	3
Knee length shorts inleg length	2.25	2.5
¾ pants outleg length	3.75	4
¾ pants inleg length	3	3.5
7/8 & long pants outleg length	4	6
7/8 & long pants inleg length	3.25	5.5
Vertical Trunk (front & back)	3.5	3.5
Front rise All-in-one	4	4
Back rise All-in-one	4	4
Sideseam length (full length overall - underarm to ankle)	4.5	-
Sideseam length (legless romper - underarm to hip)	1.75	-
Sideseam length (short leg romper - underarm to knee)	2.75	-
Foot Grading		
base of foot length	0.8	
foot width	0.3	
upper foot length	0.5	

Continued on next page

12a: Infants' Grading Tables, Continued

Swimwear	0000- 2 ½	2 ½ - 3
Body Widths & Circumferences		
Chest circumference	2	2
Waist circumference (elasticated/relaxed)	1	1
Waist circumference (elasticated/stretched)	1	1
Hip circumference	2	2
Gusset width @ narrowest	0	0
Neck width	0.5	1
Swimwear Armhole, Neck & Leg Circumferences		
Neck circumference relaxed	2	2
Armhole circumference relaxed	2	2
Swimsuit leg circumference relaxed	2	2
Swimsuits Body Lengths		
Swimsuit sideseam length	1	1
Swimsuit centre front length from neck to crotch	2	2
Swimsuit c. back length from underarm/waist to crotch	2	2
Swimsuits Arm, Neck & Leg Drops		
Swimsuit/top front neck drop	1	1
Swimsuit/top back neck drop	1	1
Swimsuit/top armdrop	1	1
Swimsuit/bikini pant front leg drop (incl gusset)	1	1
Swimsuit/bikini pant back leg drop	1	1

12b: Boys' Grading Tables

Summary

The charts on the following pages show the grading measurements per size for boys.

<i>Tshirts, Shirts, Tops, Jackets, Dressing Gowns</i>		3-7		7-8		8-16
Body Circumferences						
Chest circumference		2		6		2.5
Hem circumference		2		6		2.5
Body Lengths						
Tops - HSP to hem		2		4		2
Tops - LSP to hem		2		4		2
Tops - Side Seam Length		1.5		3		1.5
Dressing Gowns - HSP to Hem		3.5		4		3.5
Neck Dimensions incl. Hoods						
Front neck drop		0.25		0		0.25
Back neck drop		0		0.5		0
Neck width - HSP to HSP		0.5		0		0.5
Neck circ. relaxed/buttoned		1		0		1
Neck circ. stretched		1		0		1
Collar outer edge length		1		0		1
Hood width		0.5		0		0.5
Hood depth		0.5		0		0.5
Armholes						
Armdrop, measured straight		0.5		1		0.5
Sleeve Circumferences						
Sleeve circ. @ underarm		0.75		2		1.25
Short sleeve hem circ.		0.75		2		1.25
Long sleeve hem circ. @ wrist (elasticated/relaxed)		0.5		1		0.5
Long sleeve hem circ. @ wrist (elasticated/stretched)		0.5		1		0.5
Long sleeve hem circ. @ wrist (non-elasticated)		0.5		1		0.5
Shoulders						
Shoulder to shoulder		0.75		2		1
SET IN Sleeve Lengths						
Short sleeve length from LSP		1.25		2		1
Short sleeve seam length		0.5		2		0.5
Long Sleeve Length from LSP		3		3.5		2.5
Long Sleeve Seam Length		2.25		3.5		2
RAGLAN Sleeve Lengths						
Short sleeve from HSP		1.5		3.5		1.25
Long Sleeve Length from HSP		3.25		6.5		3

Continued on next page

12b: Boys' Grading Tables, Continued

Shorts & Pants	3-7	7-8	8-16
Body Circumferences			
Waist circumference (non-elasticated)	1.5	2	2
Waist circumference (elasticated/relaxed)	1.5	1	2
Waist circumference (elasticated/stretched)	1.5	2	2
Hip Circumference from top of Waistband	0.5	1	0.5
Hip circumference	1.5	3	2
Thigh circumference	1.5	2	1.25
Shorts Leg Circumferences			
Above knee shorts hem circumference	1.5	2	1
Knee length shorts hem circumference	1.5	2	1
Long length shorts hem circumference	1.5	2	1
Straight Leg Pants Hem Circumferences			
3/4 length pants hem circumference	1	1.5	1
Long pants hem circumference (non elasticated)	1	1	1
Long pants hem circ. (elasticated/relaxed)	1	1	1
Long pants hem circ. (elasticated/stretched)	1	1	1
Body Lengths			
Front rise length	0.75	0	0.75
Back rise length	0.75	0	0.75
Above knee shorts outleg length	2	2	2
Above knee shorts inleg length	1.5	2	1.5
Knee length shorts outleg length	2.5	2	2
Knee length shorts inleg length	2	2	1.5
Below knee shorts outleg length	3	2	2
Below knee shorts inleg length	2.5	2	1.5
3/4 length pants outleg length	3.75	4	3
3/4 length pants inleg length	3.25	4	2.5
Full length pants outleg length	5	6	4
Full length pants inleg length	4.5	6	3.5

Continued on next page

12b: Boys' Grading Tables, Continued

Swimwear & Activewear		3-7		7-8		8-16
Body Widths & Circumferences						
Rash vest chest circumference		3		3		2.5
Rash vest waist circumference		3		3		2.5
Rash vest hem circumference		3		3		2.5
Togs waist circumference flat		1		0.5		1.5
Togs waist circumference stretched flat		1.5		1		2
Togs hip circumference @ top of leg		2.5		1.5		2
Togs back width @ crotch seam						
Togs gusset @ narrowest						
Armhole, Neck & Leg Circumferences						
Neck circumference relaxed		0.5		0		0.5
Swimsuit leg circumference relaxed						
Above knee shorts hem circumference		2		1		1
SET IN Sleeve Lengths						
Short sleeve length from LSP		1		1		1
Short sleeve seam length		1		1		0.5
RAGLAN Sleeve Lengths						
Short sleeve from HSP		1.5		1.75		1.5
Long Sleeve Length from HSP		2.75		3.25		3
Swimsuits & Tops Body Lengths						
Rash vest sideseam length		1.5		1.5		1.25
Rash vest length - HSP to hem		2		2		2
Swimsuits & Tops Arm, Neck & Leg Drops						
Rash vest front neck drop		0.25		0		0.25
Rash vest back neck drop		0		0.25		0
Rash vest armdrop		0.5		0.5		0.75
Togs centre front to gusset seam						
Togs centre back to gusset seam						
Shorts/Pants Body Lengths						
Front rise length		0.75		0.75		0.75
Back rise length		0.75		0.75		0.75
Shorts outleg length		2.5		1		2
Shorts inleg length		2		1		1.5

12c: Girls' Grading Tables

Summary

The charts on the following pages show the grading measurements per size for girls.

<i>Dresses, Shirts, Tops, Jackets</i>		3-7		7-8	8-16
Body Circumferences					
Chest circumference		2		4	3
Waist circumference (non-elasticated)		2		1	3
Waist circumference (elasticated/relaxed)		2		1	3
Waist circumference (elasticated/stretched)		2		4	3
Hem circumference - flat/stretched		2		4	3
Hem circumference - ribbed/elasticated		2		3	3
Body Lengths					
HSP to waist		0.5		1	1
Waist from hem (garments for upper body)		0.5		1	0.5
Sideseam length - tops only		1.75		1.5	1
Sideseam length - dresses only (above knee)		2.5		2.5	2.5
Sideseam length - dresses only (below knee/ankle length)		3.25		3.5	3.5
Tops - HSP to hem		2		2	1.5
Dresses - HSP to hem - above knee/knee length		2.75		3	3
Dresses - HSP to hem - below knee/ankle length		3.5		4	4
Neck Dimensions incl. Hoods					
Front neck drop		0.25		0	0.25
Back neck drop		0		0.5	0
Neck width - HSP to HSP		0.25		0	0.5
Neck circ. stretched		0.5		0	0.5
Collar outer edge length		0.5		0	1
Hood width		0.25		0	0.5
Hood depth		0.25		0	0.5
Armholes & Straps					
Armdrop, measured straight		0.25		0.5	0.5
Strap length (front & back) - high back		0.5		0.5	0.5
Strap length (front & back) - low back		0.75		0.75	0.75
Sleeve Circumferences					
Sleeve circ. @ underarm		0.75		1	1
Short sleeve hem circ.		0.75		1	1
Elbow length sleeve hem circ.		0.5		1	0.75
3/4 length sleeve hem circ.		0.5		1	0.75
Long sleeve hem circ. @ wrist (elasticated/relaxed)		0.5		0	0.5
Long sleeve hem circ. @ wrist (elasticated/stretched)		0.5		1	0.5
Long sleeve hem circ. @ wrist (non-elasticated)		0.5		1	0.5
Shoulders					
Shoulder to shoulder		0.75		1	1
SET IN Sleeve Lengths					
Short sleeve length from LSP		1.5		1	0.75
Short sleeve seam length		1		0.5	0.25
Elbow sleeve length from LSP		2		1.5	1
Elbow sleeve seam length		1.5		1	0.5
3/4 sleeve length from LSP		2.5		2	1.5
3/4 sleeve seam length		2		1.5	1
Long sleeve length from LSP		2.75		2.5	2
Long sleeve seam length		2.25		2	1.5
Sleeve head depth from LSP - use for cap sleeve		0.5		0.5	0.5
RAGLAN Sleeve Lengths					
Short sleeve from HSP		1.75		1.5	1
Elbow sleeve from HSP		2.25		2	1.25
3/4 sleeve from HSP		2.75		2.5	1.75
Long sleeve from HSP		3.25		3	2.5

12c: Girls' Grading Tables, Continued

Skirts, Shorts, Pants		3-7		7-8	8-16
Skirts at Natural Waist					
Waist circumference (non-elasticated)		1.5		2	2
Waist circumference (elasticated/relaxed)		1.5		2	2
Waist circumference (elasticated/stretched)		1.5		4	2
High hip circumference		1.5		4	2
High hip from waist		0.5		0.25	0.5
Hip circumference		1.5		4	2
Hip from waist		0.5		0.5	0.5
Skirt hem circumference		1.5		4	2
Mini length		1		1	1
Above knee length		2		1.5	1.25
3/4 length		3.5		4.5	1.75
Skirts at Low Waist					
Waist circumference (non-elasticated & elasticated/relaxed)		1.5		4	2
Hip circumference		1.5		4	2
Hip from waist		0.5		0.25	0.5
Skirt hem circumference		1.5		4	2
Mini length		1		0	1
Above knee length		2		1	1
3/4 length		3.5		4	1.25
Shorts at Natural Waist					
Waist circumference (non-elasticated)		1.5		2	2
Waist circumference (elasticated/relaxed)		1.5		2	2
Waist circumference (elasticated/stretched)		1.5		4	2
High hip circumference		1.5		4	2
High hip from waist		0.5		0.25	0.5
Hip circumference		1.5		4	2
Hip from waist		0.5		0.5	0.5
Thigh circumference		1.5		2	2
Front rise length		0.75		1	0.75
Back rise length		0.75		1	0.75
Short shorts hem circumference		1.5		2	2
Above knee shorts hem circumference		1.5		1.5	1.5
Knee length shorts hem circumference		1.25		1	1.5
Shorts outleg length		1		1	1
Shorts inleg length		0.5		0	0.5
Above knee shorts outleg length		2		1.5	1.25
Above knee shorts inleg length		1.5		0.5	0.75
Knee length shorts outleg length		2.5		2	1.5
Knee length shorts inleg length		2		1	1

Continued on next page

12c: Girls' Grading Tables, Continued

Shorts at Low Waist				
Waist circumference (non-elasticated & elasticated/relaxed)		1.5	4	2
Hip circumference		1.5	4	2
Hip from waist		0.5	0.25	0.5
Front rise length		0.75	0.5	0.5
Back rise length		0.75	0.5	0.5
Thigh circumference		1.5	2	2
Short shorts hem circumference		1.5	2	2
Above knee shorts hem circumference		1.5	1.5	1.5
Knee length shorts hem circumference		1.5	1	1.5
Shorts outleg length		1	0.5	0.5
Shorts inleg length		0.5	0	0.25
Above knee shorts outleg length		2	1	1
Above knee shorts inleg length		1.75	0.5	0.75
Knee length shorts outleg length		2.5	1.5	1.5
Knee length shorts inleg length		2	1	1
Pants at Natural Waist				
Waist circumference (non-elasticated)		1.5	2	2
Waist circumference (elasticated/relaxed)		1.5	2	2
Waist circumference (elasticated/stretched)		1.5	4	2
High hip circumference		1.5	4	2
High hip from waist		0.5	0.25	0.5
Hip circumference		1.5	4	2
Hip from waist		0.5	0.5	0.5
Thigh circumference		1.5	2	2
Front rise length		0.75	1	0.75
Back rise length		0.75	1	0.75
3/4 pants outleg length		3.75	4.5	1.75
3/4 pants inleg length		3.25	3.5	1.25
7/8 pants outleg length		4.25	5.5	2.25
7/8 pants inleg length		3.75	3.5	1.75
Long pants outleg length		5	8	3
Long pants inleg length		4.5	7	2.5
Pants at Low Waist				
Waist circumference (non-elasticated & elasticated/relaxed)		1.5	4	2
Hip circumference		1.5	4	2
Hip from waist		0.5	0.25	0.5
Thigh circumference		1.5	2	2
Front rise length		0.75	0.5	0.5
Back rise length		0.75	0.5	0.5
3/4 pants outleg length		3.75	4	1.5
3/4 pants inleg length		3.25	3.5	1.25
7/8 pants outleg length		4.25	5	1.75
7/8 pants inleg length		3.75	3.5	1.5
Long pants outleg length		5	7.5	2.5
Long pants inleg length		4.5	7	2.25
Straight Leg Pants Hem Circumferences				
3/4 length pants hem circumference		1	0.75	1
7/8 length pants hem circumference		1	0.75	1
Long pants hem circumference (non elasticated)		1	0.75	1
Long pants hem circ. (elasticated/relaxed)		1	1	1
Long pants hem circ. (elasticated/stretched)		1	1	1
Flared Leg Pants Hem Circumferences				
Knee Circumference		1	1	1
Knee from Crotch		1.5	1	1
3/4 length pants hem circumference		1	1	1
7/8 length pants hem circumference		1	1	1
Long pants hem circumference (non elasticated)		1	1	1

Continued on next page

12c: Girls' Grading Tables, Continued

Swimwear, Activewear	3-7	7-8	8-16
Body Widths & Circumferences			
Chest circumference	3	3	3
Waist circumference (elasticated/relaxed)	1.5	1.5	2
Waist circumference (elasticated/stretched)	1.5	1.5	2
Hip circumference	3	2	4
Gusset width @ narrowest	0.5	0	0.5
Neck width	0.5	0	0.5
Thigh Circ	2	2	3
Leg Hem Circ (Short)	2	2	3
Outleg length (short)	1.5	0	1.5
Inleg Length (Short)	0.5	0	0.5
Swimwear Armhole, Neck & Leg Circumferences			
Neck circumference relaxed	3	0	3
Armhole circumference relaxed	1.5	1	1.5
Swimsuit leg circumference relaxed	4	2	3
Swimsuit boyleg thigh/hem circumference	2	1	2
Swimsuits Body Lengths			
Swimsuit sideseam length	1.5	0.5	2
Swimsuit centre front length from neck to crotch	3.5	1.5	2.5
Swimsuit c. back length from underarm/waist to crotch	varies	varies	varies
Bikini pant centre front length	2	0	1
Bikini pant centre back length	2	0	1
Bikini sideseam length	0.5	0.25	0.25
Swimsuit boyleg pant sideseam length	2	0	1
Swimsuits Arm, Neck & Leg Drops			
Swimsuit/top front neck drop	0.5	0.5	0.5
Swimsuit/top back neck drop	varies	varies	varies
Swimsuit/top armdrop	0.5	0.5	0.5
Swimsuit/bikini pant front leg drop (incl gusset)	2	1	1.5
Swimsuit/bikini pant back leg drop	3	1	1.5
Swimsuit boyleg back rise	1	0	1
Swimsuit boyleg front rise	1	0	1

12d: Women's Grading Tables (including Size Charts)

TO FIT:	8	10	12	14	16	18	20	22	24	26	28
BUST	81	86	91	96	101	106	111	116	121	126	131
WAIST	61	66	71	76	81	86	91	96	101	106	111
HIP	91	96	101	106	111	116	121	126	131	136	141

TO FIT:	XS	S	M	L	XL	2XL	3XL	4XL
BUST	80	88	96	104	112	120	128	136
WAIST	60	68	76	84	92	100	108	116
HIP	90	98	106	114	122	130	138	146

Ref. Code	Dresses, Shirts, Tops, Jackets	8-18	18-20	20-28
Body Circumferences				
	Chest circumference	5	5	5
	Waist circumference (non-elasticated)	5	5	5
	Waist circumference (elasticated/relaxed)	4	4	4
	Waist circumference (elasticated/stretched)	5	5	5
	Hip circumference @ 20cms below waist	5	5	5
	Hem circumference	5	5	5
Body Lengths				
	HSP to bust point	.5	.5	.5
	HSP to underbust	.75	.75	.75
	HSP to back waist - fitted style only	1.5	1.5	1.5
	Bust point to bust point	.75	.75	.75
	Tops - HSP to hem - short & med. length	1.5	1.5	1.5
	Tops - HSP to hem - long length	1	1	1
	Dresses - HSP to hem - above knee/knee length	1	1	1
	Dresses - HSP to hem - below knee/ankle length	0	0	0
	Vertical Trunk (front or back)	3	3	3
Neck Dimensions incl. Hoods				
	Front neck drop	0.25	0.25	0.25
	Back neck drop	0	1	0
	Neck width - HSP to HSP	0.5	0.5	0.5
	Neck circ. relaxed/buttoned	1	1	1
	Neck circ. stretched	0	1	0
	Collar outer edge length	1	1	1
	Hood width	0.5	0.5	0.5
	Hood depth	0.5	0.5	0.5
Armholes & Straps				
	Armdrop, measured straight	0.5	0.5	0.5
	Strap length (front & back)	1	1	1
Sleeve Circumferences				
	Sleeve circ. @ underarm	1.75	1.75	1.75
	Short sleeve hem circ.	1.75	1.75	1.75
	Elbow length sleeve hem circ.	1.5	1.5	1.5
	3/4 length sleeve hem circ.	1	1	1
	Long sleeve hem circ. @ wrist (elasticated/relaxed)	0	1	0
	Long sleeve hem circ. @ wrist (elasticated/stretched)	0.75	0.75	0.75
	Long sleeve hem circ. @ wrist (non-elasticated)	0.75	0.75	0.75
Shoulders				
	Shoulder to shoulder	1	1	1
	Shoulder length	0.25	0.25	0.25
SET IN Sleeve Lengths				
	Short sleeve length from LSP	0.75	0.75	0.75
	Elbow, 3/4 & long sleeve length from LSP	0.75	0.75	0.75
	Sleeve head depth from LSP	0.75	0.75	0.75
	Short sleeve seam length	0	0	0
	Elbow, 3/4 & long sleeve seam length	0	0	0
RAGLAN Sleeve Lengths				
	Short sleeve from c/back	1.25	1.25	1.25
	Elbow, 3/4 & long sleeve from c/back	1.25	1.25	1.25

12d: Women's Grading Tables (including Size Charts),
Continued

Dresses, Shirts, Tops, Jackets	8-18	18-20	20-28
Body Circumferences			
Chest circumference	5	5	5
Waist circumference (non-elasticated)	5	5	5
Waist circumference (elasticated/relaxed)	4	4	4
Waist circumference (elasticated/stretched)	5	5	5
Hip circumference @ 20cms below waist	5	5	5
Hem circumference	5	5	5
Body Lengths			
HSP to bust point	0.5	0.5	0.5
HSP to underbust	0.75	0.75	0.75
HSP to back waist - fitted style only	1.5	1.5	1.5
Bust point to bust point	0.75	0.75	0.75
Tops - HSP to hem - short & med. length	1.5	1.5	1.5
Tops - HSP to hem - long length	1	1	1
Dresses - HSP to hem - above knee/knee length	1	1	1
Dresses - HSP to hem - below knee/ankle length	0	0	0
Vertical Trunk (front or back)	3	3	3
Neck Dimensions incl. Hoods			
Front neck drop	0.25	0.25	0.25
Back neck drop	0	1	0
Neck width - HSP to HSP	0.5	0.5	0.5
Neck circ. relaxed/buttoned	1	1	1
Neck circ. stretched	0	1	0
Collar outer edge length	1	1	1
Hood width	0.5	0.5	0.5
Hood depth	0.5	0.5	0.5
Armholes & Straps			
Armdrop, measured straight	0.5	0.5	0.5
Strap length (front & back)	1	1	1
Sleeve Circumferences			
Sleeve circ. @ underarm	1.75	1.75	1.75
Short sleeve hem circ.	1.75	1.75	1.75
Elbow length sleeve hem circ.	1.5	1.5	1.5
3/4 length sleeve hem circ.	1	1	1
Long sleeve hem circ. @ wrist (elasticated/relaxed)	0	1	0
Long sleeve hem circ. @ wrist (elasticated/stretched)	0.75	0.75	0.75
Long sleeve hem circ. @ wrist (non-elasticated)	0.75	0.75	0.75
Shoulders			
Shoulder to shoulder	1	1	1
Shoulder length	0.25	0.25	0.25
SET IN Sleeve Lengths			
Short sleeve length from LSP	0.75	0.75	0.75
Elbow, 3/4 & long sleeve length from LSP	0.75	0.75	0.75
Sleeve head depth from LSP	0.75	0.75	0.75
Short sleeve seam length	0	0	0
Elbow, 3/4 & long sleeve seam length	0	0	0
RAGLAN Sleeve Lengths			
Short sleeve from c/back	1.25	1.25	1.25
Elbow, 3/4 & long sleeve from c/back	1.25	1.25	1.25

Continued on next page

12d: Women's Grading Tables (including Size Charts),
Continued

Ref. Code	<i>Skirts, Shorts, Pants</i>	8-18	18-20	20-28
Body Circumferences				
	Waist circumference (non-elasticated)	5	5	5
	Waist circumference (elasticated/relaxed)	4	4	4
	Waist circumference (elasticated/stretched)	5	5	5
	High hip circumference @ 10cms below waist	5	5	5
	Hip circumference @ 20cms below waist	5	5	5
	Skirt hem circumference	5	5	5
	Thigh circumference	3	3.5	3.5
Shorts Leg Circumferences				
	Short shorts hem circumference	3	3.5	3.5
	Above knee shorts hem circumference	2	2.5	2.5
	Knee length shorts hem circumference	1.5	1.5	1.5
Straight Leg Pants Hem Circumferences				
	3/4 length pants hem circumference	1	1	1
	7/8 length pants hem circumference	1	1	1
	Long pants hem circumference (non elasticated)	1	1	1
	Long pants hem circ. (elasticated/relaxed)	0	1	0
	Long pants hem circ. (elasticated/stretched)	1	1	1
Flared Leg Pants Hem Circumferences				
	3/4 length pants hem circumference	1.5	1.5	1.5
	7/8 length pants hem circumference	1.5	1.5	1.5
	Long pants hem circumference (non elasticated)	1.5	1.5	1.5
Body Lengths				
	Front rise length measured straight	0.75	0.75	0.75
	Back rise length measured straight	0.75	0.75	0.75
	Front rise length on curve	1	1.25	1.25
	Back rise length on curve	1	1.25	1.25
	Shorts outleg length	0.75	0.75	0.75
	Shorts inleg length	0	0	0
	3/4, 7/8 & long pants outleg length	0.75	0.75	0.75
	3/4, 7/8 & long pants inleg length	0	0	0

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12d: Women's Grading Tables (including Size Charts),

Continued

Ref. Code	Skirts, Shorts, Pants	XS-L	L-XL	XL-4XL
	Body Circumferences			
	Waist circumference (non-elasticated)	7.5	7.5	7.5
	Waist circumference (elasticated/relaxed)	6	6	6
	Waist circumference (elasticated/stretched)	7.5	7.5	7.5
	High hip circumference @ 10cms below waist	7.5	7.5	7.5
	Hip circumference @ 20cms below waist	7.5	7.5	7.5
	Skirt hem circumference	7.5	7.5	7.5
	Thigh circumference	4.75	5.25	5.25
	Shorts Leg Circumferences			
	Short shorts hem circumference	4.75	5.25	5.25
	Above knee shorts hem circumference	3.5	4	4
	Knee length shorts hem circumference	2.25	2.25	2.25
	Straight Leg Pants Hem Circumferences			
	3/4 length pants hem circumference	1.5	1.5	1.5
	7/8 length pants hem circumference	1.5	1.5	1.5
	Long pants hem circumference (non elasticated)	1.5	1.5	1.5
	Long pants hem circ. (elasticated/relaxed)	0	1	0
	Long pants hem circ. (elasticated/stretched)	1.5	1.5	1.5
	Flared Leg Pants Hem Circumferences			
	3/4 length pants hem circumference	2.25	2.25	2.25
	7/8 length pants hem circumference	2.25	2.25	2.25
	Long pants hem circumference (non elasticated)	2.25	2.25	2.25
	Body Lengths			
	Front rise length measured straight	1	1	1
	Back rise length measured straight	1	1	1
	Front rise length	1.5	1.75	1.75
	Back rise length	1.5	1.75	1.75
	Shorts outleg length	1	1	1
	Shorts inleg length	0	0	0
	3/4, 7/8 & long pants outleg length	1	1	1
	3/4, 7/8 & long pants inleg length	0	0	0

Continued on next page

12d: Women's Grading Tables (including Size Charts),
Continued

Swimwear, Activewear	8-18	18-20	20-28
Body Widths & Circumferences			
Swimsuit/top front chest width	1.5	1.5	1.5
Swimsuit/top front waist width	1.5	1.5	1.5
Swimsuit/top front hip width	1.5	1.5	1.5
Swimsuit/top back chest width	1	1	1
Swimsuit/top back waist width	1.5	1.5	1.5
Swimsuit/top back hip width	2.5	2.5	2.5
Waist circumference (elasticated/relaxed)	3	3	3
Waist circumference (elasticated/stretched)	3	3	3
Hip circumference @ 20cms below waist	3	3	3
Thigh circumference	2	2	2
Gusset width @ narrowest	0	1	0
Armhole, Neck & Leg Circumferences			
Neck circumference relaxed	1.75	1.75	1.75
Armhole circumference relaxed	1	1	1
Swimsuit leg circumference relaxed	1	1	1
Shorts hem circumference	2	2	2
Above knee shorts hem circumference	1.5	1.5	1.5
Knee length shorts hem circumference	1	1	1
Straight Leg Pants Hem Circumferences			
3/4 length pants hem circumference	0.75	0.75	0.75
7/8 length pants hem circumference	0.75	0.75	0.75
Long pants hem circumference	0.75	0.75	0.75
Flared Leg Pants Hem Circumferences			
3/4 length pants hem circumference	1	1	1
7/8 length pants hem circumference	1	1	1
Long pants hem circumference (non elasticated)	1	1	1
Swimsuits & Tops Body Lengths			
Bra tops front HSP to hem @ underbust point	0.75	0.75	0.75
Bra tops back HSP to hem @ centre back	0.25	0.25	0.25
Bra tops sideseam length	0.25	0.25	0.25
Swimsuit sideseam length	0.5	0.5	0.5
Swimsuit centre front length from neck to crotch	1	1	1
Swimsuit c. back length from underarm/waist to crotch	0.75	0.75	0.75
Swimsuits & Tops Arm, Neck & Leg Drops			
Swimsuit/top front neck drop	0.25	0.25	0.25
Swimsuit/top back neck drop	0.25	0.25	0.25
Swimsuit/top armdrop	0.25	0.25	0.25
Swimsuit/bikini pant front leg drop (incl gusset)	0.5	0.5	0.5
Swimsuit/bikini pant back leg drop	0.25	0.25	0.25
Shorts/Pants Body Lengths			
Front rise length	1	1	1
Back rise length	1	1	1
Shorts outleg length	0.75	0.75	0.75
Shorts inleg length	0	0	0
3/4, 7/8 & long pants outleg length	0.5	0.5	0.5
3/4, 7/8 & long pants inleg length	0	0	0

Continued on next page

12d: Women's Grading Tables (including Size Charts),
Continued

Swimwear, Activewear	XS-L	L-XL	XL-4XL
Body Circumferences			
Swimsuit/top front chest width	2.25	2.25	2.25
Swimsuit/top front waist width	2.25	2.25	2.25
Swimsuit/top front hip width	2.25	2.25	2.25
Swimsuit/top back chest width	1.5	1.5	1.5
Swimsuit/top back waist width	2.25	2.25	2.25
Swimsuit/top back hip width	3.5	3.5	3.5
Waist circumference (elasticated/relaxed)	4.5	4.5	4.5
Waist circumference (elasticated/stretched)	4.5	4.5	4.5
Hip circumference @ 20cms below waist	4.5	4.5	4.5
Thigh circumference	3	3	3
Armhole, Neck & Leg Circumferences			
Neck circumference relaxed	2.5	2.5	2.5
Armhole circumference relaxed	1.5	1.5	1.5
Shorts Hem Circumferences			
Short shorts hem circumference	3	3	3
Above knee shorts hem circumference	2	2	2
Knee length shorts hem circumference	1.5	1.5	1.5
Straight Leg Pants Hem Circumferences			
3/4 length pants hem circumference	1	1	1
7/8 length pants hem circumference	1	1	1
Long pants hem circumference (non elasticated)	1	1	1
Flared Leg Pants Hem Circumferences			
3/4 length pants hem circumference	1.5	1.5	1.5
7/8 length pants hem circumference	1.5	1.5	1.5
Long pants hem circumference (non elasticated)	1.5	1.5	1.5
Swimsuits & Tops Body Lengths			
Bra tops front HSP to hem @ underbust point	1.25	1.25	1.25
Bra tops back HSP to hem @ centre back	0.5	0.5	0.5
Bra tops sideseam length	0.5	0.5	0.5
Shorts/Pants Body Lengths			
Front rise length	1.5	1.5	1.5
Back rise length	1.5	1.5	1.5
Shorts outleg length	1	1	1
Shorts inleg length	0	0	0
3/4, 7/8 & long pants outleg length	0.5	0.5	0.5
3/4, 7/8 & long pants inleg length	0	0	0

12e: Men's Grading Tables (including Size Charts)

	77	82	87	92	97	102	107	112
TO FIT CHEST	88	94	100	106	112	118	124	130
WAIST	77	82	87	92	97	102	107	112
SEAT	97	102	107	112	117	122	127	132

	XS	S	M	L	XL	2XL	3XL	4XL	5XL
TO FIT CHEST	88	94	100	106	112	118	124	130	136
WAIST	74	80	86	92	98	104	110	116	122
SEAT	94	100	106	112	118	124	130	136	142

Fixed waist trousers / shorts	77-82	82-87	87-92	92-97	97-102	102-107	107-112
Body Circumferences							
Waist circumference (non-elasticated)	5	5	5	5	5	5	5
Hip circumference @ 20cms below waist	5	5	5	5	5	5	5
Thigh circumference	3	3	3	3	3	3	3
Shorts Leg Circumferences							
Short shorts hem circumference	3	3	3	3	3	3	3
Above knee shorts hem circumference	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Knee length shorts hem circumference	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Straight Leg Pants Hem Circumferences							
3/4 length pants hem circumference	1	1	1	1	1	1	1
Trousers hem circumference flat / stretched	1	1	1	1	1	1	1
Body Lengths							
Front rise length	1	1	1	1	1	1	1
Back rise length	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Outleg length - short shorts only!	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Outleg length - knee length shorts only	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Outleg length - trousers only	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Inleg length - shorts (NOT SHORT SHORTS) & pants	0	0	0	0	0	0	0
Inleg length - SHORT SHORTS ONLY	0	0	0	0	0	0	0

Elasticated waist trousers / shorts	XS-S	S-M	M-L	L-XL	XL-2XL	2XL-3XL	3XL-4XL	4XL-5XL
Body Circumferences								
Waist circumference relaxed (elasticated)	5	5	5	5	5	5	5	5
Waist circumference stretched flat (elasticated)	6	6	6	6	6	6	6	6
Hip circumference @ 20cms below waist	6	6	6	6	6	6	6	6
Thigh circumference	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Shorts Leg Circumferences								
Short shorts hem circumference	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Above knee shorts hem circumference	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Knee length shorts hem circumference	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Straight Leg Pants Hem Circumferences								
3/4 length pants hem circumference	1	1	1	1	1	1	1	1
Trousers hem circumference relaxed (elasticated)	1	1	1	1	1	1	1	1
Trousers hem circumference flat / stretched	1	1	1	1	1	1	1	1
Body Lengths								
Front rise length	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Back rise length	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Outleg length - short shorts only!	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Outleg length - knee length shorts only	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Outleg length - trousers only	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Inleg length - shorts (NOT SHORT SHORTS) & pants	0	0	0	0	0	0	0	0
Inleg length - SHORT SHORTS ONLY	0	0	0	0	0	0	0	0

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12e: Men's Grading Tables (including Size Charts), Continued

Shirts, Tops, Jackets.	XS-S	S-M	M-L	L-XL	XL-2XL	2XL-3XL	3XL-4XL	4XL-5XL
Body Circumferences								
Chest circumference	6	6	6	6	6	6	6	6
Hem circumference	6	6	6	6	6	6	6	6
Body Lengths								
Total length from HSP to hem	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Total length from LSP to hem	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Side seam length	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Neck Dimensions incl. Hoods								
Front neck drop	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Back neck drop	0	0	0	0.5	0	0	0.5	0
Neck width	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Neck circ. relaxed/buttoned	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Neck circ. stretched	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Collar outer edge length	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Hood width at widest	1	0	1	0	1	0	1	2
Hood depth at centre front	1	0	1	0	1	0	1	2
Hood depth at centre back	1	0	1	0	1	0	1	2
Armholes								
Armdrop, measured straight	1	1	1	1	1	1	1	1
Sleeve Circumferences								
Sleeve circ. @ underarm	2	2	2	2	2	2	2	2
Short sleeve hem circ.	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Long sleeve hem circ. @ wrist (elasticated/relaxed)	0	0	0	1	0	0	0	0
Long sleeve hem circ. @ wrist (elasticated/stretched)	1	1	1	1	1	1	1	1
Long sleeve hem circ. @ wrist (non-elasticated)	1	1	1	1	1	1	1	1
Shoulders								
Shoulder to shoulder	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Shoulder length	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SET IN Sleeve Lengths								
Short sleeve seam length	0	0	0	0	0	0	0	0
Long sleeve seam length	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Short sleeve from LSP	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Long sleeve from LSP	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
RAGLAN Sleeve Lengths								
Short sleeve length from HSP	1	1	1	1	1	1	1	1
Long sleeve length from HSP	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

Continued on next page

12e: Men's Grading Tables (including Size Charts), Continued

		TO FIT NECK	37	38	39	40	41	42	43	44	45
		CHEST	92	96	100	104	108	112	116	120	124
		WAIST	79	83	87	91	95	99	103	107	111
		SEAT	98	102	106	110	114	118	122	126	130
Ref. Code	<i>Formal & Business Shirts</i>										
			37-38	38-39	39-40	40-41	41-42	42-43	43-44	44-45	
B1	Chest circumference		4	4	4	4	4	4	4	4	4
C1	Waist circumference		4	4	4	4	4	4	4	4	4
E1	Hem circumference		4	4	4	4	4	4	4	4	4
A8	Centre back to Natural Waist		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
A1	Total length from HSP to hem		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
A2	Total length from LSP to hem		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
J4	Front neck drop		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
J5	Back neck drop		0	0	0	0	0	0	0	0	0
J1	Neck width		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
J2	Neck circ. relaxed/buttoned		1	1	1	1	1	1	1	1	1
H1	Armdrop, measured straight		0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
I1	Sleeve circ. @ Underarm		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
K10	Hem Circ. @ elbow		1	1	1	1	1	1	1	1	1
K7	Hem Circ. @ wrist		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
F1	Shoulder to Shoulder (sq shlders)		2	2	2	2	2	2	2	2	2
F4	Shoulder Length		0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
G1	Short Sleeve Length from LSP (sq shlders)		0	0	0	0	0	0	0	0	0
G7	Long Sleeve Length from LSP (sq shlders)		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
G2	Short sleeve seam length		0	0	0	0	0	0	0	0	0
G10	Long sleeve seam length		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2