

WINIFRED ALDRICH

5TH EDITION

**metric pattern  
cutting  
for menswear**

 WILEY



# Table of Contents

[Title Page](#)

[Copyright](#)

[Acknowledgements](#)

[Introduction](#)

[Design and pattern cutting for menswear](#)

[Tools and equipment for constructing patterns](#)

[Aliquot parts](#)

[Glossary](#)

[Chapter 1: The basic principles - sizing - using the blocks](#)

[Metric sizing and size charts](#)

[Standard Body Measurements](#)

[Small Medium Large Xlarge XXL large sizes](#)

[Body measurement chart for Small Medium Large Xlarge sizes \(8cm increments\)](#)

[Using block patterns](#)

[Seam allowances](#)

[Pattern instructions](#)

[Part One: 'Flat' Cutting](#)

## Chapter 2: The 'flat' blocks – woven and jersey fabrics

The 'flat' trouser blocks

The 'flat' shirt and overgarment blocks

The tee shirt and overgarment jersey blocks

The 'flat' kimono block (woven or jersey fabrics).

## Chapter 3: Leisurewear, weatherwear and sportswear

Leisurewear and weatherwear (woven fabrics).

Leisurewear and sportswear (jersey fabrics).

Casual trousers (woven and jersey fabrics).

The basic jeans blocks

## Chapter 4: Workwear

## Chapter 5: Basic nightwear

The pyjama block

# Part Two: Standard Pattern Cutting Processes

## Chapter 6: Constructing sleeves

Sleeves – 'flat' cutting

Sleeves – 'flat' or 'form' cutting

Sleeves – 'form' cutting

## Chapter 7: Constructing openings and collars

Front openings

Collars - basic principles

Standing Collars

Collars cut in one with the garment

Collars and revers

Flat collars

## Part Three: 'Form' Cutting - Classic and Casual Menswear

### Chapter 8: Classic suit jackets

The classic suit jacket block

The classic easy fitting suit jacket block

The suit two-piece sleeve block

To complete suit jacket patterns

Lining the suit jackets

The classic waistcoat block

### Chapter 9: Classic and casual trousers

The classic trouser block

Waistbands

### Chapter 10: Classic and casual shirts

The classic shirt block

The tailored shirt block

The casual shirt block



## Chapter 11: Classic and casual overgarments

Classic and casual overgarment blocks

Adaptations of the blocks

## Part Four: Sizing and Fit

### Chapter 12: Basic grading techniques

Pattern grading

Grading the 'form' blocks

Grading the 'flat' blocks

### Chapter 13: Drafting and adapting the blocks for individual figures

Drafting and adapting the blocks for individual figures

Taking body measurements

Fitting problems - trousers

Fitting problems - coats, jackets and shirts

## Part Five: Computer Aided Design (CAD)

### Chapter 14: Computer generated design and pattern making

Connectivity and marketing

Design creation and illustration

Product Data Management (PDM).

3D body scanning and sizing

Pattern design and modification

Garment sampling – 3D software programs

Pattern grading - 1

Pattern grading - 2

Pattern grading - 3

Pattern grading - 4

Made-to-measure

Production lay planning and marker-making - 1

Production lay planning and marker-making - 2

Plotting and cutting

Product Lifecycle Management (PLM).

# Metric Pattern Cutting for Menswear

Fifth edition

**Winifred Aldrich**



A John Wiley & Sons, Ltd, Publication

This edition first published 2011

© 1980, 1990, 1997, 2006 and 2011, Winifred Aldrich

*Registered office*

John Wiley & Sons Ltd, The Atrium, Southern Gate,  
Chichester, West Sussex, PO19 8SQ, United Kingdom

*Editorial office*

John Wiley & Sons Ltd, The Atrium, Southern Gate,  
Chichester, West Sussex, PO19 8SQ, United Kingdom

For details of our global editorial offices, for customer services and for information about how to apply for permission to reuse the copyright material in this book please see our website at [www.wiley.com](http://www.wiley.com).

The right of Winifred Aldrich to be identified as the author of this work has been asserted in accordance with the UK Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by the UK Copyright, Designs and Patents Act 1988, without the prior permission of the publisher.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The publisher is not associated with any product or vendor mentioned in this book. This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold on the

understanding that the publisher is not engaged in rendering professional services. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

The views expressed in this book are those of the author and do not represent the views of the Publisher. The inclusion of images provided by Lectra SA is in no way an endorsement by Lectra SA of the contents of this book or any representations made therein.

ISBN 9781405182935

A catalogue record for this book is available from the British Library.

# Acknowledgements

I would like to thank Alec Aldrich, Ann Rodgers and Dawn Stubbs for their help with the earlier editions of this book; James Aldrich for his technical support; Stephen Chalkley for the provision of my CAD system.

I would also like to thank the following companies who have supplied information and photographs for the chapter on computer aided design:

*assyst bullmer Ltd, UK.*

*Browzwear International Ltd, Israel.*

*Dassault Systemes, France.*

*Fast React Systems Ltd, UK.*

*Gerber Technology, UK.*

*GRAPHIS-software, Germany.*

*Human Solutions, Germany.*

*Lectra, France.*

*Visualretailing, The Netherlands.*

Finally, I would like to thank Nicole Burnett and Andrew Kennerley of *John Wiley & Sons* who have been responsible for the technical production of this book.

**To see other available titles please visit**  
**[www.wiley.com](http://www.wiley.com)**



# Introduction

## ***The Fifth Edition***

Alterations and additions in this edition have been made in order to ally it to the recent changes in the new editions of my books on women's wear and children's wear. This has meant the re-organisation of the different sections of the book. The popularity of easy fitting styles and knitted fabrics has meant that basic '*flat*' *pattern cutting* is used by a large sector of the retail mass-market. Manufacturers of this type of clothing are quite different from those who specialise in formal clothing such as suits. This latter type of manufacture involves '*form*' *pattern cutting*, in which the body shape or the particular traditional style of the garment, dictates the cut.

The introduction of colour in this book has improved the expanded CAD section, and the colour coded sections have made it easier to identify specific processes in the book. After Chapter One, 'The basic principles – sizing – using the blocks', the book is divided into five parts.

**Part One** covers 'flat' blocks and pattern adaptation for a wide range of garments for leisurewear, workwear and nightwear.

**Part Two** covers the pattern cutting of the basic sleeves and collars. These are standard processes that are used in almost all types of pattern cutting adaptations.

**Part Three** demonstrates '*form*' *pattern cutting*, this method requires blocks that conform more closely to the body form and often involves complex methods of cut and construction. This section includes basic blocks for classic formal garments; suits, shirts and coats. It also

demonstrates the cutting of the types of leisurewear which some manufacturers like to cut to the male body shape.

**Part Four** includes a chapter on simple grading techniques and also a chapter on altering patterns to fit the individual figure.

**Part Five** illustrates the latest software offered by CAD suppliers for the menswear trade. The repetition of styles in this sector means that CAD is very applicable to the manufacture of men's clothing. CAD technology is now often integrated into design practices through product data management systems (PDM), which are often extended into product lifecycle management (PLM). Instant communication of procedures has become vital to companies designing in the UK but manufacturing overseas. The cost of CAD systems has reduced dramatically today, most clothing companies use some form of computer technology and the larger companies operate systems of considerable complexity.

This edition now separates quite clearly the sections useful to students beginning to be interested in menswear design, (Parts One and Two). It also offers more advanced sections aimed at students who wish to have a career working in the more formal sector of the menswear trade. The book still remains true to its original concept, it aims to provide a simple flexible system of pattern cutting for menswear. It offers the student an opportunity to be inventive and to produce well-cut designs. The book includes many blocks (some revised) for traditional menswear shapes, for example, a variety of suit and shirt blocks, but it still concentrates on illustrating pattern adaptation. Rigid methods of pattern construction in the menswear trade often deterred many students from continuing their interest in designing for men. The book is written for students who have mastered the basic principles of pattern cutting for women; it allows them to transfer easily to exploring

designs for men and to approach the subject in a creative way.

**Special note - seam allowances** A number of colleagues have queried this book's procedure of using blocks that include seam allowances and of retaining them during pattern adaptation. This seems to conflict with the method of working without seam allowances which is used in my two previous books written for women's wear and children's wear. There is a practical reason for this apparent lack of consistency. My books have not been written to promote some particular theoretical approach to clothing design, but to help students to become competent in the basics of pattern cutting and therefore gain the confidence to develop their own 'cut'. Many students are bewildered when they enter industry and find that they have to work with seam allowances added to the pattern. The patterns constructed in many clothing companies are derived from previous styles and it is just not practical to work with nett patterns. I believe that it is useful for students, usually in the second or third year of their course, to have a book which demonstrates the procedure of pattern cutting with seam allowances and illustrates the problems of working in this way. It is possible to use this book for pattern cutting without added seam allowances.

The introduction of CAD into the design rooms allows a company to work with nett patterns, but in practice this rarely happens as many companies modify previous styles. When the practice of nett pattern cutting on computers approaches a universal method, then this book will be revised accordingly.

## **Design and pattern cutting for menswear**

The growth of fashion magazines for men has had a huge impact on male attitudes to fashion. They promote the image of the young affluent man, reflecting an aspiring lifestyle and a reference point for the current acceptable male image. *GQ*, a glossy magazine of almost three hundred pages, devotes less than one-third to features, the remainder is devoted to shopping, lifestyle and fashion. Fashion marketing for men is now accepted to the point where the weekend magazines of newspapers feature menswear in their mainstream fashion articles.

The classic garments worn by men have remained remarkably resilient through the decades. Fashion may appear to simply revolve around classic shapes but it is renewed by the differences in style, cut, colour and the combination of garments and accessories. Men are especially attracted to conventional pieces with eccentric twists. If this is discreet, it can offer fashion longevity. The majority of men steer away from complicated pieces and impracticality. More extremes of fashion that are shown by designers and displayed in the fashion journals may appear to be dismissed by High-street fashion, but ideas such as deconstruction or close fitting extremes are interpreted and infiltrate into a season's fashion style. The silhouette created is the signature of a style; subtle or extreme variations of the basic garment shapes can radically change the look of a season. A simple change of cut to the classic pea jacket, the bomber jacket or the formal overcoat can transform them into a new fashion style.

The mixing of sport and casual wear with formal wear has become accepted dressing in both the wearing of colour and in garment combinations. It has become conventional to wear polo shirts or tee shirts with a suit, or a formal jacket with jeans. This new acceptance of colour, print and new combinations of classic garments have produced a robust and acceptable fashion market for men. The past decade

has seen a global perspective for men's fashion, with a growth in luxury brands and designer labels. Branded jeans are now a luxury item; customers will pay for the quality of the fabric, and most of all, the quality of the cut. The expansion of retail outlets that sell expensive garments and accessories may be halted as financial restraints impact on clothing sales.

The demise of the suit has often been predicted but appears to be irreplaceable. A well cut suit still demands respect in many areas of business. The bespoke tailor can still compete with the retailed 'designer' suit, and young radical designers are still entering the trade. A number of these who began their careers in the bespoke trade still seek to retain a high quality level with their own label or when developing a range for a manufacturer. The defined styling change to a closer fit that occurred in the late nineties has remained, together with length variations, one buttoned suits, lapel designs and explorations with new fabrics (particularly stretch components). This closer fit has expanded into shirts and knitwear. This will not necessarily remain; a new silhouette will appear and be accepted. Manufacturers have to respond with speed to these kinds of mercurial changes. British industry, which is dominated by large manufacturing groups, is not as responsive as its continental competition where small companies have the flexibility to respond. The middle and lower end of the market is highly influenced by the prediction companies.

The explosion of new fabrics has produced many problems for the mass-production market. The demands of the manufacturing process and the engineered garment have produced a rapid expansion of textile testing related to machinery use. This has also affected the cutting techniques that have to be employed when many of the new fabrics are used. New synthetics with a lack of tailorability require different cutting techniques. It is

important to recognise that it is the handle of the fabric that is vital in the creation of garment shape. Mass-production and the engineered suit require quite different techniques from the bespoke suit.

High-level performance fabrics have had a significant impact in high-cost casualwear and sportswear. There has been an emergence of complex garments with breathable membranes, inner shells and complex constructions of many pieces. Sportswear, career and workwear designs have become increasingly technologically based. Designers have to consider the garment function and body actions, the study of the technological developments of fabrics and their impact on garment manufacture. Innovation can be driven by new fabric and construction techniques. The ability to handle the production of these garments in many variations of style and cloth has been largely due to the adoption of computer aided design by many manufacturing companies. CAD is now more affordable, thus lessening any technological advantages held by the larger suppliers.

The acceptance of changing shapes and proportions means that the fashion cycles and their themes are becoming as important in menswear as in women's wear. Designing for the male figure also holds attractions. It has motivated a number of top women's wear designers into bringing a fresh perspective to clothing collections for men.

## **Tools and equipment for constructing patterns**

A student should aim to acquire a good set of equipment. However, some items are very expensive. The items marked with an asterisk denote those that are not essential immediately.



*Working surface* A flat working surface is required. However, a tracing wheel will mark any polished or laminated top, therefore some protection must be given to this type of surface.

*Paper* Strong brown or white paper is used for patterns. Parchment or thin card should be used for blocks that are used frequently.

*Pencils* Use hard pencils for drafting patterns (2H). Coloured pencils are useful for outlining complicated areas.

*Fibre pens* These are required for writing clear instructions on patterns.

*Rubber*

*Metric ruler*

*Curved rules* These are used for drawing long curves.

*Metre stick*

*Set square* A large set square with a 45° angle is very useful; metric grading squares can be obtained.

*Metric tape measure*

*Tracing wheel*

*Shears* Use separate shears for cutting cloth and paper as cutting paper will blunt the blades.

*Sellotape*

*Pins*

*One-quarter and one-fifth scale squares* These are useful for students to record pattern blocks and adaptations in their notebooks.

*Stanley knife*

*Tailor's chalk* This is used for marking out the final pattern onto the cloth and for marking alterations on the garment when it is being fitted.

*Toile fabrics* Calico is used for making toiles for designs in woven fabrics. Make sure the weight of the calico is as close to the weight of the cloth as possible. Knitted fabric must be

used for making toiles for designs in jersey fabrics; the toile fabric should have the same stretch quality.

*\*Metric square* This does not have to be the more expensive graduated tailor 's square based on a chest scale. The system in this book is based on a range of standard body measurements so the graduated square is of limited use.

*\*Calculator* The calculator is now a common tool in all areas of skill; it eliminates the hard work of calculating proportions and is accurate. If a calculator is not available, use the table of aliquot parts.

*\*French curves* Plastic shapes and curves are available in a range of sizes; they are useful for drawing good curves. A flexicurve that allows a shape to be manipulated is also available.

*\*Pattern notcher* This is a tool which marks balance points by snipping out a section of pattern paper.

*\*Pattern punch*

*\*Pattern hooks*

*\*Pattern weights* These keep pieces of pattern in position on paper or cloth.

*\*Model stands* Although not essential for a beginner, they are invaluable to the serious student for developing designs.

*\*Computer equipment* A description of computer equipment is given in Chapter 14.

The equipment above can be obtained from:

*Morplan, 56 Great Tichfield Street, London*

*W1W 7DF. Tel: 020 7636 1887;*

*Website: [www.morplan.co.uk](http://www.morplan.co.uk)*

*Eastman Staples Ltd, Lockwood Road, Huddersfield*

*HD1 3QW. Tel: 01484 888 888;*

*Website: [www.eastman.co.uk](http://www.eastman.co.uk)*

## Aliquot parts

If a calculator is not available for working out fractional parts, the following table can be used. (Figures in columns marked with an asterisk are calculated to one decimal place).

neck size (cm)

	$\frac{1}{4}$	$\frac{1}{5}$
36	9	7.2
37	9.25	7.4
38	9.5	7.6
39	9.75	7.8
40	10	8
41	10.25	8.2
42	10.5	8.4
43	10.75	8.6
44	11	8.8
45	11.25	9

chest and seat (cm)

	$\frac{1}{16}$	$\frac{1}{12}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$
88	5.5	7.3	11	14.7	22	29.3	44
90	5.6	7.5	11.25	15	22.5	30	45
92	5.8	7.7	11.5	15.3	23	30.7	46
94	5.9	7.8	11.75	15.7	23.5	31.3	47
96	6	8	12	16	24	32	48
98	6.1	8.2	12.25	16.3	24.5	32.7	49
100	6.3	8.3	12.5	16.7	25	33.3	50
102	6.4	8.5	12.75	17	25.5	34	51
104	6.5	8.7	13	17.3	26	34.7	52
106	6.6	8.8	13.25	17.7	26.5	35.3	53
108	6.8	9	13.5	18	27	36	54
110	6.9	9.2	13.75	18.3	27.5	36.7	55
112	7	9.3	14	18.7	28	37.3	56
114	7.1	9.5	14.25	19	28.5	38	57
116	7.3	9.7	14.5	19.3	29	38.7	58
118	7.4	9.8	14.75	19.7	29.5	39.3	59
120	7.5	10	15	20	30	40	60
122	7.6	10.2	15.25	20.3	30.5	40.7	61
124	7.8	10.3	15.5	20.7	31	41.3	62
126	7.9	10.5	15.75	21	31.5	42	63

scye depth (cm)

	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{2}$
21.2	4.2	5.3	10.6
22	4.4	5.5	11
22.8	4.6	5.7	11.4
23.6	4.7	5.9	11.8
24.4	4.9	6.1	12.2
25.2	5	6.3	12.6
26	5.2	6.5	13
26.4	5.3	6.6	13.2
26.8	5.4	6.7	13.4
27.2	5.5	6.8	13.6

## Glossary

Definitions of terms used when drafting patterns.

**Back pitch/front pitch** Points on body sections of the garment which match balance points on the sleeve, to ensure that the sleeve hangs correctly.

**Balance** Garment balance is the adjustment of the front and back lengths which, because of the stance of the figure, may become uneven.

**Balance marks** Marks or notches that denote positions where seams are joined together.

**Bespoke tailoring** The practice of cutting and making individual garments for customers.

**Block** See Chapter 1, 'Seam allowances'.

**Buttonstand** The distance between the button line and the front edge of the garment.

**Enclosed seams** Seams that are hidden from view e.g. inside a collar, facing or cuff.

**Fitting lines** The lines along which a garment must be seamed when it is assembled.

**Fly** A flap to conceal buttons, often used with regard to the front fastening on men's trousers.

**Forepart** The front section of a jacket or coat.

**Fork** The seam line that joins the legs of the trousers, passing between the legs.

**Girth** A measurement around the body.

**Gorge** The front neck line of a garment.

**Inlay** See Chapter 1, 'Seam allowances'.

**Mass-production** The practice of making a garment design in quantity by industrial methods.

**Scye** Armhole.

**Seat angle** The angle of the back fork line of trousers.

**Seat wedge** The wedge that is opened on back fork line of trousers to increase the seat angle.

**Sidebody** A side section of a jacket or coat.

**Sleeve head** The section of the sleeve from scye depth line to top of sleeve.

The definitions for the following terms: ***Style line, Roll line, Stand, Fall, Break point, Break line*** are given in the section on collars.



# Chapter 1

## The basic principles - sizing - using the blocks

### **Metric sizing and size charts**

#### ***Measurement surveys***

Some manufacturers undertake small-scale surveys of body measurements to gain information for their niche market. To obtain reliable measurements, costly surveys in which thousands of subjects are measured have to be carried out. The Ministry of Defence carried out this type of survey for aircrew in 1988. The government and retailers jointly funded the most recent British survey carried out by the Department of Computer Science, at UCL using computer body scanning. Companies that have borne all, or a proportion of the costs, see the information as commercially valuable and may withhold the raw data from public use. Some problems remain, but the scanners can now make reliable recordings of most of the principal body measurements required for clothing. The 3D body images also record the changing shape of the population.

#### ***British and European standards***

The British Standards Institution has usually been a main guide to sizing, measurements and labelling. Their new Standards are now adopted from CEN, the European Committee for Standardization. Most European countries, including the UK, have signed to adopt the standards, the aim being to provide a coherent method of sizing and labelling. Three standards titled *The size designation of clothes* have been agreed and these are available from the British Standards Institution.

BS EN 13402-1:2001 *Terms, definitions and body measurement procedures*

BS EN 13402-2:2002 *Primary and secondary dimensions*  
(Used for garment labelling, example shown below)

BS EN 13402-3:2004 *Measurements and intervals*

Garment	Primary dim.	Secondary dim.
Jackets	Chest girth	Height
		Waist girth
Suits	Chest girth	Height
		Inside leg length
Overcoats	Chest girth	Height
Trousers	Waist girth	Inside leg length
Shirts	Neck girth	Height Arm length

The standard offers body measurement ranges in 4cm(chest 84-120cm) and 6cm (chest 120-144cm) intervals for use in size charts. The standard also shows a pictogram of a figure for use on garment labels.

A fourth standard BS EN 13402-4 designed to designate a coding system, was attempted but a draft paper could not be agreed. European coding divisions increase in 4cm and

6cm intervals whilst UK coding is still based on imperial divisions of two inches (5cm approx.).

Two new standards BS EN ISO 7250-1:2010 and BS EN ISO 7250-2:2010 *Basic human body measurements for technological design* offer measurement positions and international body size charts for ergonomic design. This information could be useful for manufacturers producing specialist workwear.

## ***Comments on size labels (2010)***

The use of standards by manufacturers is voluntary and explains the anarchic systems of sizing that are found in high-street fashion. Whilst some fashion outlets for younger men that sell European fashions have changed to metric sizing, most British manufacturers have retained imperial code sizing divisions and are showing approximate metric conversions. The different size intervals in European sized clothing can be confusing for UK customers. It often requires an interpretation from the salesman and this can vary. It is difficult to find any manufacturer using a pictogram to identify body measurement positions. Most of the major retail stores give metric conversions on inside labels, but still base their coding on the garment rails in imperial 2" size increments. This problem has probably been a factor in the growth of clothing marked SMALL, MEDIUM, LARGE and XLARGE.

Although size charts and conversion charts are lacking in the major retail stores, their sales websites appear to offer far more detailed information with body diagrams, size charts, and coding conversions.

## ***Size charts***

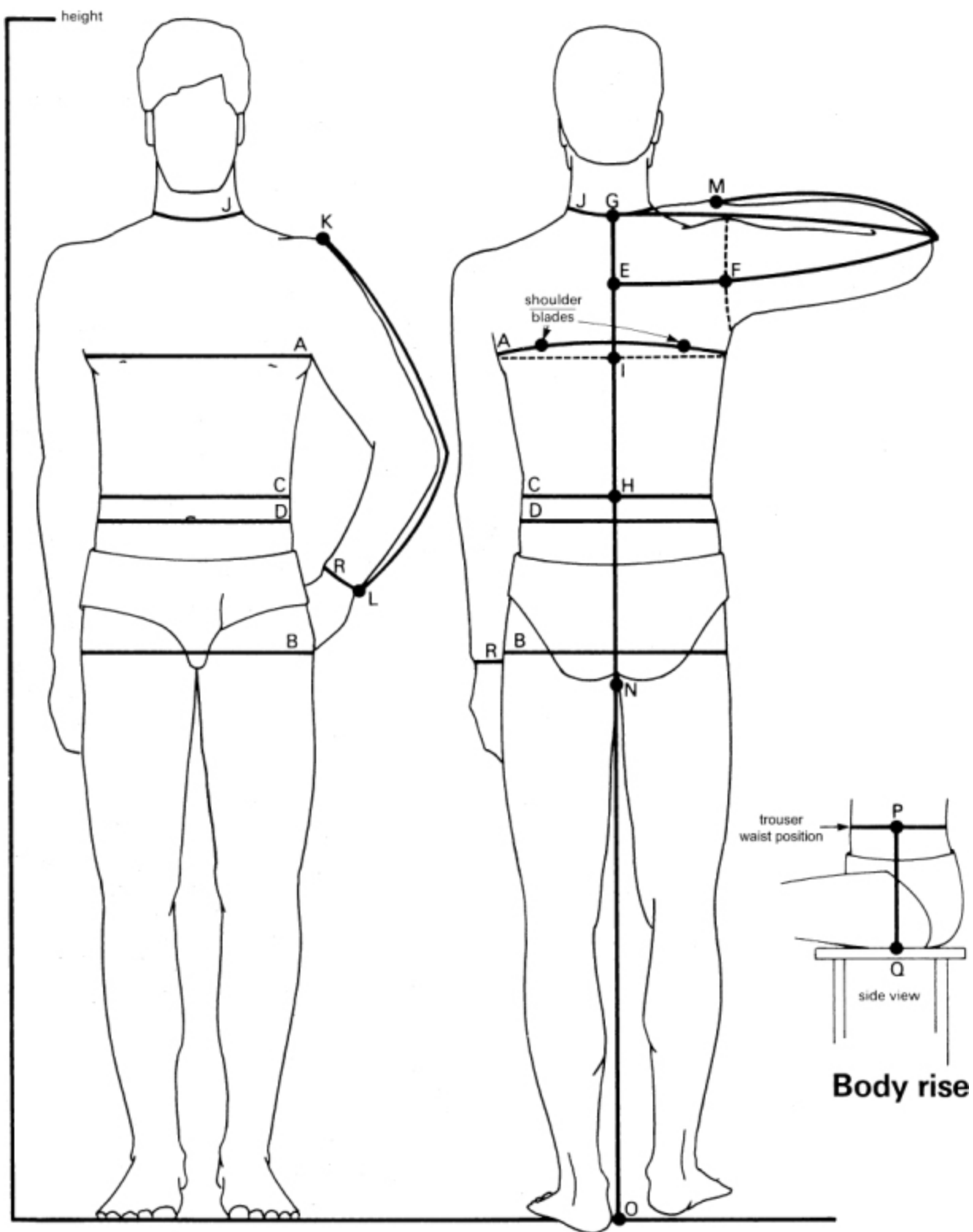
Manufacturers determine their size charts with reference to two main factors, the type of garment that they produce

and their target market. It is also possible for manufacturers to purchase both national and international sizing information, some of which is from 3D body scanning data. It is interesting to note that one major retailer states on their website that their size charts are derived from **centimetre body measurements** and are rounded up to the nearest inch.

## ***Size charts of body measurements in this book***

- 1.** Standard body measurements: young men - athletic figures of regular height (4cm increments)
- 2.** Standard body measurements: mature figures of regular height (4cm increments)
- 3.** Standard body measurements: young men - athletic figures of regular height (5cm increments)
- 4.** Body measurement chart for Small Medium Large Xlarge sizes: athletic figures of regular height (8cm increments)

## **Standard Body Measurements**



# Standard body measurements: young men - athletic figures of regular height (4cm increments)

*Height 173 – 180cm (5ft 8in – 5ft 11in)*

Size chart for overgarments and trousers								
A	chest	88	92	96	100	104	108	112
B	seat	90	94	98	102	106	110	114
C	waist	74	78	82	86	90	94	98
D	trouser waist position (4–6cm below waist)	78	82	86	90	94	98	102
E–F	half back	18.5	19	19.5	20	20.5	21	21.5
G–H	back neck to waist	43	43.4	43.8	44.2	44.6	44.8	45
G–I	scye depth	22	22.8	23.6	24.4	25.2	25.6	26
J	neck size	37	38	39	40	41	42	43
K–L	sleeve length    one-piece sleeve	63	63.6	64.2	64.8	65.4	65.7	66
E–M	sleeve length    two-piece sleeve	79	80	81	82	83	83.8	84.6
N–O	inside leg	77	78	79	80	81	82	83
P–Q	body rise	27.2	27.5	27.8	28.1	28.4	28.7	29
R	close wrist measurement	16.6	17	17.4	17.8	18.2	18.6	19
Extra measurements (garments)								
garment length		varies with type of garment and with fashion						
cuff size    two-piece sleeve		27.4	28	28.6	29.2	29.8	30.4	30.8
trouser bottom width (varies with fashion)		21.4	21.8	22.2	22.6	23	23.4	23.8
jeans bottom width (varies with style)		21.4	21.8	22.2	22.6	23	23.4	23.8

## Adjustments for short or tall figures

Size charts for tall or short men have each vertical measurement adjusted as follows

	<b>SHORT 163-170cm</b>	<b>TALL 183-190cm</b>
	<b>(5ft 4in-5ft 7in approx.)</b>	<b>(6ft-6ft 3in approx.)</b>
back neck to waist	–2cm	+2cm
scye depth	–1cm	+1cm
sleeve length	–2.5cm	+2.5cm
garment length	–4cm	+4cm
inside leg	–4cm	+4cm
body rise	no change	+1cm



# Standard body measurements: mature figures of regular height (4cm increments)

*Height 173–180cm (5ft 8in–5ft 11in)*

Size chart for overgarments and trousers											
A	chest		88	92	96	100	104	108	112	116	120
B	seat		92	96	100	104	108	114	118	122	126
C	waist		78	82	86	90	94	98	102	106	110
D	trouser waist position (4–6cm below waist)		82	86	90	94	98	102	106	110	114
E–F	half back		18.5	19	19.5	20	20.5	21	21.5	22	22.5
G–H	back neck to waist		43	43.4	43.8	44.2	44.6	44.8	45	45.2	45.4
G–I	scye depth		22	22.8	23.6	24.4	25.2	25.6	26	26.4	26.8
J	neck size		37	38	39	40	41	42	43	44	45
K–L	sleeve length	one-piece sleeve	63	63.6	64.2	64.8	65.4	65.7	66	66.3	66.6
E–M	sleeve length	two-piece sleeve	79	80	81	82	83	83.8	84.6	85.4	86.2
N–O	inside leg		77	78	79	80	81	82	82	83	83
P–Q	body rise		27.2	27.5	27.8	28.1	28.4	28.6	28.8	29	29.2
R	close wrist measurement		16.6	17	17.4	17.8	18.2	18.6	19	19.4	19.8
Extra measurements (garments)											
garment length			varies with type of garment and with fashion								
cuff size two-piece sleeve (varies with fashion)			28.4	29	29.6	30.2	30.8	31.2	31.6	32	32.4
trouser bottom width (varies with fashion)			22.4	22.8	23.2	23.6	24	24.4	24.6	24.8	25
jeans bottom width (varies with style)			21.4	21.8	22.2	22.6	23	23.4	23.8	24.2	24.6

## A size chart for shirts – mature and athletic figures

neck (collar size)	37	38	39	40	41	42	43	44	45
A chest	88	92	96	100	104	108	112	116	120
G–I scye depth	22	22.8	23.6	24.4	25.2	25.6	26	26.4	26.8
G–H back neck to waist	43	43.4	43.8	44.2	44.6	44.8	45	45.2	45.4
E–F half back	18.5	19	19.5	20	20.5	21	21.5	22	22.5
sleeve length for shirts	84	85	85	86	86	87	87	88	88
shirt length	78	78	80	81	81	82	82	82	82
cuff size for shirts	23	23.5	23.5	24	24	24.5	24.5	25	25

# Standard body measurements: young men – athletic figures of regular height (5cm increments)

*Height 173 – 180cm (5ft 8in – 5ft 11in)*

Size chart for overgarments and trousers						
Imperial chest size approx. – inches	34	36	38	40	42	44
Imperial waist size approx. – inches	28	30	32	34	36	38
A chest	87	92	97	102	107	112
B seat	89	94	99	104	109	114
C waist	73	78	83	88	93	98
D trouser waist position (4–6cm below waist)	77	82	87	92	97	102
E–F half back	18.4	19	19.6	20.2	20.8	21.4
G–H back neck to waist	43	43.4	43.8	44.2	44.6	45
G–I scye depth	22	22.8	23.6	24.4	25.2	26
J neck size	36.8	38	39.2	40.4	41.6	42.8
K–L sleeve length one-piece sleeve	63	63.6	64.2	64.8	65.4	66
E–M sleeve length two-piece sleeve	78.8	80	81.2	82.4	83.6	84.8
N–O inside leg	77	78.2	79.4	80.6	81.8	83
P–Q body rise	27.2	27.6	28	28.4	28.8	29.2
R close wrist measurement	16.5	17	17.5	18	18.5	19
<b>Extra measurements (garments)</b>						
garment length	<i>varies with type of garment and with fashion</i>					
cuff size two-piece sleeve	27.6	28.2	28.8	29.4	30	30.6
trouser bottom width ( <i>varies with fashion</i> )	21	21.5	22	22.5	23	23.5
jeans bottom width ( <i>varies with style</i> )	21	21.5	22	22.5	23	23.5

## Adjustments for short or tall figures

Size charts for tall or short men have each vertical measurement adjusted as follows

	<b>SHORT 163-170cm</b>	<b>TALL 183-190cm</b>
	<b>(5ft 4in-5ft 7in approx.)</b>	<b>(6ft-6ft 3in approx.)</b>
back neck to waist	–2cm	+2cm
scye depth	–1cm	+1cm
sleeve length	–2.5cm	+2.5cm
garment length	–4cm	+4cm
inside leg	–4cm	+4cm
body rise	no change	+1cm

**Small Medium Large  
Xlarge XXLarge sizes**