

TECHNICAL REPORT

ISO/TR 10652

First edition
1991-04-15

Standard sizing systems for clothes

Systèmes de tailles standards pour vêtements

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/TR 10652:1991](#)

<https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991>



Reference number
ISO/TR 10652 : 1991 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The main task of technical committees is to prepare International Standards. In exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/TR 10652, which is a Technical Report of type 2, was prepared by Technical Committee ISO/TC 133, *Sizing systems and designations for clothes*.

This document is being issued in the type 2 Technical Report series of publications (according to subclause G.6.2.2 of part 1 of the IEC/ISO Directives) as a "prospective standard for provisional application" in the field of sizing systems for clothes because there is an urgent need for guidance on how standards in this field should be used to meet an identified need.

This document is not to be regarded as an "International Standard". It is proposed for provisional application so that information and experience of its use in practice may be gathered. Comments on the content of this document should be sent to the ISO Central Secretariat.

A review of this type 2 Technical Report will be carried out not later than two years after its publication with the options of: extension for another two years; conversion into an International Standard; or withdrawal.

Annexes A, B and C of this Technical Report are for information only.

© ISO 1991

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Introduction

In order to size mass-produced clothes, the body size of the intended wearer has to be defined and identified with the nearest size on a table of standard sizes. In this garment-related system, the body size is defined by scales of the appropriate control dimensions, using preferred numbers. A good degree of standardization is achieved by the establishment of open-ended size scales with fixed intervals in at least the primary control dimension for each garment type. Where body shape is characterized by two girth control dimensions, the first is placed on a fixed scale, while the second (the dependent variable) is not. The nearest whole number in the survey data for that dimension is used for purposes of size designation.

The processing of body measurement data as described in this Technical Report results in the grouping of body sizes appropriate to the population concerned. Garment size tables are readily compiled from this information. It is necessary to use an open system with inbuilt flexibility, because body shape and proportions for any one population group differ significantly.

The frequency distribution of standard body sizes is a useful means of determining which body sizes are applicable to the bulk of the population. This Technical Report does not take into account the age of the subject, mainly because age is not a dimension used for fitting clothing. However, it is recognized that body shape is affected by age. Consequently systems may need to be adjusted, particularly in the case of waist girth for women's wear for which body shape is defined by dimensions other than the waist girth.

The sizing systems presented in annexes A to C are exemplary only, being mostly derived from regional survey data.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This page intentionally left blank

[ISO/TR 10652:1991](#)

<https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991>

Standard sizing systems for clothes

Section 1: General

1.1 Scope

This Technical Report establishes a body sizing system to be used for compiling standard garment sizes for infants (Section 2), men and boys (Section 3) and women and girls (Section 4). Garment dimensions are not contained in this Technical Report.

1.2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Technical Report. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Technical Report are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3636: 1977, *Size designation of clothes — Men's and boys' outerwear garments.*

ISO 3637: 1977, *Size designation of clothes — Women's and girls' outerwear garments.*

ISO 3638: 1977, *Size designation of clothes — Infants' garments.*

ISO 4415: 1981, *Size designation of clothes — Men's and boys' underwear, nightwear and shirts.*

ISO 4416: 1981, *Size designation of clothes — Women's and girls' underwear, nightwear, foundation garments and shirts.*

ISO 4417: 1977, *Size designation of clothes — Headwear.*

ISO 4418: 1978, *Size designation of clothes — Gloves.*

ISO 5971: 1981, *Size designation of clothes — Pantyhose.*

ISO 7070: 1982, *Size designation of clothes — Hosiery.*

ISO 8559: 1989, *Garment construction and anthropometric surveys — Body dimensions.*

1.3 Definitions

For the purposes of this Technical Report, the following definitions apply.

1.3.1 control dimensions: Those body measurements in centimetres, on which a sizing system is built, and that are used to assign an appropriately sized garment to a wearer.

1.3.2 secondary dimensions: Those body measurements, other than control measurements, that are used to define garment size.

1.3.3 size scale: An open-ended control dimensional scale of preferred numbers and fixed intervals.

1.3.4 sizing system: A table of body dimensions including control and secondary dimensions, appropriate to one garment type, to which fitting and fashion tolerances are added to provide garment size tables.

1.3.5 size designation ("Mondoform system"): The official method of body size labelling on a garment, either by pictogram or by indicating the appropriate control dimensions and their numerical values. A component element of a sizing system.

1.3.6 body type: An indication of body shape as defined by the drop value.

1.3.7 drop value:

(1) Women: the difference, expressed in centimetres, between the hip girth and the bust girth.

(2) Men: the difference, expressed in centimetres, between the chest girth and the waist girth.

1.3.8 infant: A male or female person of height 104 cm or less.

1.3.9 girl: A female person whose growth in height is not yet finished.

1.3.10 boy: A male person whose growth in height is not yet finished.

1.3.11 woman: A female person whose growth in height is finished.

1.3.12 man: A male person whose growth in height is finished.

1.4 Meanings of numbers

Any number on a fixed scale represents a range from approximately midway between the preceding and the succeeding numbers. This rule must also be taken into account for ranges of sizes.

EXAMPLES

1) Single numbers:

a) ... 88 92 96 ...: the 92 includes 90, 91, 92 and 93.

b) ... 164 170 176 ...: the 170 includes 167, 168, 169, 170, 171 and 172.

c) ... 80 85 90 ...: the 85 includes 83, 84, 85, 86 and 87.

2) Range of sizes:

A range of 92-100 covers 90 to 101 inclusive, i.e. 12, as used with bust girth for jerseys.

In the size scales, the lateral adjustment of one dimensional scale to the fixed scale is indicated by an arrow.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/TR 10652:1991](https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991)

<https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991>

Section 2: Infants' body sizes

2.1 Classification

Body measurement data, obtained preferably from a recent anthropometric survey with measurements taken in accordance with ISO 8559, shall be processed in such a way as to group measurements by the appropriate control dimension using preferred numbers and specified intersize intervals (see 2.2).

When a sizing system has to be devised, the following procedure should be followed.

- a) List the secondary dimensions considered necessary for the construction of the garment.
- b) Use the size range of the control dimension (see 2.2).
- c) Prepare a sizing system to cover the bulk (or the required part) of the population, correlating the secondary with the control dimensions.

2.2 Size range

The size range and the interval between the sizes are given in table 1.

Table 1

Dimensions in centimetres

Control dimension	Size range	Interval
Height	50-104	6

2.3 Size designation

Infants' garments shall be designated by body size as specified in ISO 3638. Garments intended to fit the head, hands or feet shall be designated in accordance with ISO 4417, ISO 4418 and ISO 7070 respectively.

See annex A for an example of a sizing system based on regional data.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/TR 10652:1991](https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991)

<https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991>

Section 3: Men's and boys' body sizes

3.1 Classification

Body measurement data, preferably based on a recent anthropometric survey with measurements taken in accordance with ISO 8559, shall be processed in such a way to group measurements by the control dimensions appropriate to the garment type, using preferred numbers and specified inter-size intervals (see 3.2).

First of all, each set of body measurements shall be grouped according to the fixed scale of the primary control dimension. From the men's data, determine the number of body types required to cover the bulk of the population. Define the drop values required and correlate the body types with the appropriate height groups.

When a sizing system has to be devised, the following procedure should be followed.

- List, in order of importance, the control dimensions appropriate to the garment type.
- List the secondary dimensions considered necessary for the construction of the garment.
- Use the specified size scales (see 3.2).
- Prepare sizing systems which cover the bulk (or the required part) of the population, by correlating the secondary dimensions with the control dimensions.

3.2 Size scales

The size scales and the inter-size intervals are given in table 2 for different types of garments for men and boys.

Table 2
Dimensions in centimetres

Control dimensions	Scale cores	Intervals
a) Men's outerwear covering the upper or the whole body, excluding knitwear		
Chest girth	... 88 92 96 100...	4
Waist girth	Integral values	
Height	... 164 170 176 182...↔	6
b) Men's outerwear covering the upper or the whole body — Knitwear		
Chest girth	... 88 92 96 100...	4
Height	... 164 170 176 182...↔	6
c) Men's outerwear covering the lower body only, excluding swimwear		
Waist girth	... 76 80 84 88...	4
Inside leg length	Integral values	
d) Men's outerwear covering the lower body only — Swimwear		
Waist girth	... 76 80 84 88...	4

Table 2 (continued)

Control dimensions	Scale cores	Intervals
e) Men's underwear covering the upper body, including informal shirts		
Chest girth	... 88 92 96 100...	4
f) Men's formal shirts		
Neck girth	... 38 39 40 41 ...	1
Arm length ¹⁾	Integral values	
g) Men's underwear and nightwear covering the whole body		
Chest girth	... 88 92 96 100...	4
Height	... 164 170 176 182...↔	6
h) Men's underwear and nightwear covering the lower body only		
Waist girth	... 76 80 84 88...	4
i) Boys' outerwear covering the upper or the whole body, excluding knitwear		
Height	110 116 122 128 134 140 146 152	6
Hip girth	... 62 64 66 68...↔	2
and height	158 164 170 176...	6
Hip girth	... 76 80 84 88...↔	4
Chest girth	Integral values	
j) Boys' outerwear covering the upper or the whole body — Knitwear		
Chest girth	... 60 62 64 66...↔	2
Height	110 116 122 128 134 140 146 152	6
and chest girth	... 72 76 80 84...↔	4
Height	158 164 170 176...	6
k) Boys' outerwear covering the lower body only, excluding swimwear		
Height	110 116 122 128 134 140 146 152	6
Hip girth	... 62 64 66 68...↔	2
and height	158 164 170 176...	6
Hip girth	... 76 80 84 88...↔	4
Waist girth	Integral values	
l) Boys' swimwear		
Waist girth	... 52 56 60 64...	4
m) Boys' underwear covering the upper body, including informal shirts		
Chest girth	... 60 62 64 66...↔	2
Height	110 116 122 128 134 140 146 152	6
and chest girth	... 72 76 80 84...↔	4
Height	158 164 170 176...	6
n) Boys' formal shirts		
Neck girth	... 28 29 30 31 32...	1
Arm length ¹⁾	Integral values	

Table 2 (concluded)

Control dimensions	Scale cores	Intervals
o) Boys' underwear and nightwear covering the whole body		
Height	110 116 122 128 134 140 146 152	6
Chest girth	...60 62 64 66...↔	2
and height	158 164 170 176...	6
Chest girth	...72 76 80 84...↔	4
p) Boys' underwear and nightwear covering the lower body only		
Waist girth	...58 60 62 64...↔	2
Height	110 116 122 128 134 140 146 152	6
and waist girth	...64 68 72 76...↔	4
Height	158 164 170 176...	6
1) Arm length (shoulder to wrist). See ISO 8559.		

3.3 Size designation

Men's and boys' garments shall be designated by body size as specified in ISO 3636 and ISO 4415. Garments intended to fit the head, hands or feet shall be designated in accordance with ISO 4417, ISO 4418 and ISO 7070 respectively.

See annex B for examples of sizing systems based on regional data.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/TR 10652:1991](https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991)

<https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991>

Section 4: Women's and girls' body sizes

4.1 Classification

Body measurement data, preferably based on a recent anthropometric survey with measurements taken in accordance with ISO 8559, shall be processed in such a way as to group measurements by the control dimensions appropriate to the garment type, using preferred numbers and specified intersize intervals (see 4.2).

First of all, each set of body measurements shall be grouped according to the fixed scale of the primary control dimension. From the women's data, determine the number of body types required to cover the bulk of the population. Define the drop values required and correlate the body types with the appropriate height groups.

When a sizing system has to be devised, the following procedure should be followed.

- List, in order of importance, the control dimensions appropriate to the garment type.
- List the secondary dimensions considered necessary for the construction of the garment.
- Use the specified size scales (see 4.2).
- Prepare sizing systems which cover the bulk (or the required part) of the population, by correlating the secondary dimensions with the control dimensions.

4.2 Size scales

The size scale and the intersize intervals are given in table 3 for different types of garments for women and girls.

Table 3

Dimensions in centimetres

Control dimensions	Scale cores	Intervals
a) Women's outerwear covering the upper or the whole body, excluding knitwear and swimwear		
Bust girth	...96 100 104 110 116...	4 and 6
Hip girth	Integral values	
Height	... 156 164 172...↔ or ... 160 168 176...↔	8 8
b) Women's outerwear covering the upper, or the whole body — Knitwear		
Bust girth	...96 100 104 110 116...	4 and 6
Height	... 156 164 172...↔ or ... 160 168 176...↔	8 8
c) Women's outerwear covering the whole body — Swimwear		
Bust girth	...96 100 104 110 116...	4 and 6
Hip girth	Integral values	

Table 3 (continued)

Control dimensions	Scale cores	Intervals
d) Women's outerwear covering the lower body only		
Hip girth	...96 100 104 108...	4
Waist girth	Integral values	
Height	... 156 164 172...↔ or ... 160 168 176...↔	8 8
e) Women's underwear covering the upper body, excluding foundation garments		
Bust girth	...96 100 104 110...	4 and 6
f) Women's and girls' foundation garments covering the upper body only		
Underbust girth	...80 85 90 95...	5
Bust girth	Mean integral values	5
g) Women's and girls' foundation garments covering the whole body		
Underbust girth	...80 85 90 95...	5
Bust girth	Mean integral values	5
Hip girth	Integral values	
h) Women's and girls' foundation garments covering the lower body only		
Hip girth	...96 100 104 108...↔	4
or waist girth	...76 80 84 88...↔	4
Other dimension (waist or hips)	Integral values	
i) Women's underwear and nightwear covering the whole body		
Bust girth	...96 100 104 110...	4 and 6
Height	... 156 164 172...↔ or ... 160 168 176...↔	8 8
j) Women's underwear covering the lower body only		
Hip girth	...96 100 104 108...	4
k) Girls' outerwear covering the upper, or the whole body, excluding knitwear		
Height	110 116 122 128 134 140...	6
Bust girth	...88 92 96 100 104 110...↔	4 and 6
Hip girth	Integral values	
l) Girls' outerwear covering the upper, or the whole body — Knitwear		
Bust girth	...56 58 60 62...↔	2
Height	110 116 122 128 134 140 146 152	6
and bust girth	...84 88 92 96 100 104 110...↔	4 and 6
Height	158 164 170 176...	6

Table 3 (concluded)

Control dimensions	Scale cores	Intervals
m) Girls' outerwear covering the lower body only		
Height	110 116 122 128 134 140 146 152	6
Hip girth	...60 62 64 66...↔	2
and height	158 164 170 176...	6
Hip girth	...88 92 96 100...↔	4
n) Girls' outerwear covering the whole body — Swimwear		
Bust girth	...92 96 100 104 110...	4 and 6
Hip girth	Integral values	
o) Girls' underwear and shirts covering the upper body only		
Bust girth	...56 58 60 62...↔	2
Height	110 116 122 128 134 140 146 152	6
and bust girth	...84 88 92 96 100 104 110...↔	4 and 6
Height	158 164 170 176...	6
p) Girls' underwear and nightwear covering the whole body		
Bust girth	...56 58 60 62...↔	2
Height	110 116 122 128 134 140 146 152	6
and bust girth	...84 88 92 96 100 104 110...↔	4 and 6
Height	158 164 170 176...	6

4.3 Size designation

Women's and girls' garments shall be designated by body size as specified in ISO 3637 and ISO 4416. Garments intended to fit the head, hands or feet shall be designated in accordance with ISO 4417, ISO 4418, ISO 7070 and ISO 5971 respectively.

See annex C for examples of sizing systems based on regional data.

ITOH STANDARD PREVIEW
(standards.iteh.ai)

ISO/TR 10652:1991

<https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2a5e/iso-tr-10652-1991>

Annex A (informative)

Example of a sizing system for infants' garments

Table A.1 gives an example of a sizing system for infants' garments. It is applicable to jackets, trousers, suits, coats and jerseys.

Table A.1 — Example of a sizing system for infants' garments

Dimensions in centimetres

Control dimensions¹⁾										
Height (2.1.26)	50	56	62	68	74	80	86	92	98	104
Secondary dimensions¹⁾										
Chest girth (2.1.7)	41	43	45	47	49	51	53	54	57	61
Waist girth (2.1.11)	41	43	45	47	49	50	52	53	55	57
Hip girth (2.1.12)	42	44	46	48	50	53	55	58	61	64
Trunk circumference (2.2.18)	60	65	70	75	80	84	88	92	96	101
Total crotch length (2.2.19)	35	36	37	38	40	42	44	45	47	49
1) The numbers in parentheses refer to the subclauses of ISO 8559: 1989 where the dimensions are defined.										

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/TR 10652:1991](https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991)

<https://standards.iteh.ai/catalog/standards/sist/629e5f3b-b611-43d8-a5ea-785a94a2af5e/iso-tr-10652-1991>