



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 10000-2023

Replacing GB/T 10000-1988, GB/T 13547-1992

Human dimensions of Chinese adults

中国成年人人体尺寸

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Foreword

This document was drafted in accordance with the rules provided in GB/T 1.1-2020 Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents.

This document replaces GB/T 10000-1988 Human dimensions of Chinese adults and GB/T 13547-1992 Human dimensions in workspaces. This document is based on GB/T 10000-1988 and integrates the contents of GB/T 13547-1992. Compared with GB/T 10000-1988, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- Add five measurement items of human dimensions: biceps circumference, thigh circumference, interpupillary distance, hand girth at metacarpale, and boll of foot girth (see Table 1 to Table 10 in 5.4);
- Add "human functional dimensions", and change and include the relevant content of GB/T 13547-1992 (see Appendix B).

Please note that some of the contents of this document may involve patents. The issuing organizations of this document are not responsible for identifying patents.

This document shall be under the jurisdiction of National Technical Committee on Ergonomics of Standardization Administration of China (SAC/TC 7).

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The previous versions of the documents which are replaced by this document are as follows:

- This is the first revision, incorporating the contents of GB/T 13547-1992 into

1 Scope

This document gives the basic statistical values of the human dimensions of adults in our country for technical design, including static human dimensions AND functional human dimensions for workspace design.

This document applies to the design and technical transformation and update of production and service products, equipment, and facilities for adult consumer goods, transportation, clothing, home furnishing, construction, labor protection, military, etc., as well as the design and the ergonomic evaluation of various operations, maintenance, safety protection and other workspaces related to human dimensions.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the version corresponding to that date is applicable to this document; for undated references, the latest version (including all amendments) is applicable to this document.

3 Terms and definitions

The posture in which the subject's body is straight, the head is positioned in the Frankfurt plane, the eyes are looking straight ahead, the shoulders are relaxed, the upper limbs hang naturally, the hands straighten, the palms are facing in, the fingers are lightly pressed against the sides of the thighs, the heels of the left and right feet are close together, the front ends are separated at an angle of approximately 45°, and the weight is evenly distributed on both feet. The posture in which the subject's torso is straight, the head is positioned in the Frankfurt plane, the eyes are looking straight ahead, the knees are bent at roughly a right angle, and the feet are flat on the ground. The distance between the tip of the middle finger and the chair surface when the upper limbs are lifted vertically in the sitting posture. The posture in which the subject is kneeling on the level ground with the chest raised, the head positioned at the level of the eyes and ears, the eyes looking straight ahead, the shoulders relaxed, the upper limbs drooping naturally, the hands straight, the palms facing the side of the body, the fingers lightly touching the sides of the thighs, the torso and thighs straightened, the front surfaces of the two thighs level, the legs horizontal, and the lower limbs closed together. The horizontal distance parallel to the sagittal plane from the most protruding part of the front surface of the thigh to the tip of the toe (the first or second toe) in the kneeling position. The distance from the top of the head to the level ground in the kneeling position.

4 Age grouping and measurement items

4.1 Age grouping

This document gives statistical values of human dimensions by age group. The age calculation method complies with the requirements of Appendix D in GB/T 22187-2008.

The age groups are as follows:

4.2 Measurement items

This document gives statistical values of 52 static human dimensions and 16 human functional dimensions. The measurement method of static human dimensions shall comply with the requirements of Chapter 6 in GB/T 5703-2023 and Appendix A. The schematic diagrams of the measurement items are shown in Appendix A.

5 Statistical values of human dimensions

5.1 Static human dimensions of adult male

5.2 Static human dimensions of adult female

The percentiles of static human dimensions of adult female by age are shown in Tables 6 to 10.

5.3 Human functional dimensions

Appendix B gives the percentiles of functional dimensions of adult males and females by age groups.

Appendix A Schematic diagrams of measurement items of static human dimensions

28 – thigh clearance height, sitting;

35 – lower limb length, sitting.

41 – sagittal arc of head;

42 – intertragus arc (coronal arc);

47 – width of proximal interphalangeal joint of index finger;

48 – width of distal interphalangeal joint of index finger;

Appendix B Human functional dimensions

The schematic diagrams of the measurement items of human functional dimensions for workspace design are shown in Figure B.1.

2 – functional armreach from back;