



Designation: D6240/D6240M – 24a

Standard Tables of Body Measurements for Adult Male, Chest Size Range 34 – 52 Short, Regular, and Tall¹

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INTRODUCTION

These body measurement tables were developed from evaluation of data currently used in the apparel industry. These tables were developed from data published by the U.S. Department of Commerce,² Caesar Study, Size USA Study, current US industry and studies, scans and documentation from Alvanon Inc.³ This standard takes into consideration adult males at a standard height of Short 5 ft 7 in., Regular 5 ft 10 in., and Tall 6 ft 2 in. (65 % of average U.S. population) taking into account the decrease and increase in body weight that shift a person from one size to another, while this person does not gain in height. Major review and evaluation were done. The incremental growth at different key body points has been addressed and defined, which resulted in identifying increases and decreases at different rates in specific areas; chest, waist, high hip and hip/seat. To serve the industry, incremental movement between sizes was reviewed ensuring smooth transition between sizes. To verify the proposed body measurements, a three-dimensional avatar was created in the Men's Short, Regular, and Tall chest size range 34 through 52 by Alvanon Inc. for a visual reference and is also attached in the documentation.

1. Scope

1.1 These tables list body measurements of adult male figure type, chest sizes 34 through 52 in Short, Regular, and Tall. Although these are body measurements, they can be used as a baseline in designing apparel for adult men in this size range when considering such factors as fabric type, ease for body movement, styling, and fit.

1.2 *Units*—The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other.

¹ These tables are under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.55 on Body Measurement for Apparel Sizing.

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² U.S. Department of Commerce, *Voluntary Product Standard: Body Measurements for the Sizing of Children's Apparel*, NIST Publication No. PS 54-172, Washington, DC.

³ Caesar: Summary Statistics for the Adult Population (ages 18-65) of the United States of America, June 2002;

Size USA North America Sizing Survey, 2004; 2000 CDC Growth Charts for the United States: Methods and Development, National Center for Health Statistics, Vital Health Stat, Series 11, No. 246, 2002;

CDC Advance Data No. 361, 7/5/2005; and Anthropometry of Infants, Children and Youths to Age 18 for Product Safety Design, May 31, 1977.

Combining values from the two systems may result in non-conformance with the standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:⁴

D123 Terminology Relating to Textiles

D5219 Terminology Relating to Body Dimensions for Apparel Sizing (Withdrawn 2024)⁵

⁴ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at www.astm.org/contact. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

⁵ The last approved version of this historical standard is referenced on www.astm.org.



2.2 *ISO Standard*:⁶

ISO 3635 Size Designation of Clothes, Definitions, and Body Measurement Procedures

3. Terminology

3.1 *Definitions*:

3.1.1 For definitions relating to body dimensions, refer to Terminology D5219.

3.1.2 For definitions of other textile terms used in these tables, refer to Terminology D123.

4. Significance and Use

4.1 The use of the body measurement information in Tables 1 and 2 will assist manufacturers in developing patterns and garments that are consistent with the current anthropometric characteristics of the population of interest. This standard, should in turn, reduce or minimize consumer confusion and dissatisfaction related to apparel sizing (also refer to ISO 3635).

4.2 Three-dimensional avatars depicting each of the adult men's sizes were created by Alvanon, Inc. and included in this standard to assist manufacturers in visualizing the posture, shape, and proportions generated by the measurement charts in Tables 1 and 2 (see Figs. 1-3).

⁶ Available from American National Standards Institute (ANSI), 1180 Avenue of the Americas, 10th Floor, New York, NY 10036, <http://www.ansi.org>.

5. Apparatus

5.1 *Tape Measure*, dimensionally stable, double coated, and approximately 1.5 cm [$\frac{1}{2}$ in.] wide and graduated accurately in centimeters or inches.

5.2 *Plastic goniometer*, to measure the radian (degree) of shoulder slope.

5.3 *Scale*, standard, calibrated, body weight type.

5.4 *Ruler*, metal.

6. Procedure

6.1 *General*:

6.1.1 For all vertical and most horizontal measurements, subject is to be standing erect without shoes and with feet approximately 15 cm [6 in.] apart (for infant special cases). For all vertical and most horizontal measurements, subject is to be lying down flat with legs extended and foot positioned at 1.57 rad (90°) to the leg.

6.1.2 Take measurements over undergarments normally worn.

6.1.3 Take all measurements from the same side of the body for consistency.

6.1.4 Refer to Terminology D5219 for the location of all points to be measured.

7. Keywords

7.1 adult men; apparel; body measurements; garment sizes; size range; tables