



Standard Tables of Body Measurements for Adult Female Misses Figure Type, Size Range 00–20¹

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^{ε1} NOTE—Measurements in Tables 1 and 2 for Upper-Chest Girth, Size 8, Shoulder Slope, Shoulder and Arm Length and Arm Length were corrected editorially in May 2012.

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 Study³, Size USA Study,⁴ Current USA industry and studies, and scans and documentation from Alvanon Inc.⁵ This standard takes into consideration Misses figure at a standard height of 5 ft 5 in. (65 % of average USA 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. Also included is a definition of body type, Curvy or Straight as applied to waist, high hip, hip seat, thigh and mid-thigh girths that result in a different body shape (silhouette). Major review and evaluation was 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; bust, waist, high hip and hip/seat. Additionally, to better 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 Misses size range 00 through 20 (Curvy and Straight) 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 female misses figure Type sizes 00 through 20. Although these are body measurements, they can be used as a baseline in designing apparel for Missy in this size range when considering such factors as fabric type, ease for body movement, styling, and fit.

1.2 These tables list body measurements for the complete range of Missy sizing.

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

2. Referenced Documents

2.1 *ASTM Standards*:⁶

D 123 Terminology Relating to Textile Materials

D 5219 Terminology Relating to a Body Dimension for Apparel Sizing

2.2 *ISO Standards*:⁷

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

3. Terminology

3.1 *Definitions*:

¹ This table is 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 Sizing of Girls' 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, 2002.

⁴ Available from: <http://www.tc2.com/sizeusa.html>

⁵ Alvanon, Inc., 145 W. 30th Street, Suite 1000, New York, NY 10001.

⁶ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

⁷ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.



3.1.1 For definitions relating to body dimensions, refer to Terminology [D 5219](#).

3.1.2 For definitions of other textile terms used in this standard, refer to Terminology [D 123–03](#).

4. Significance and Use

4.1 The use of the body measurement information in [Table 1](#) and [Table 2](#) will assist manufacturers in developing patterns and garments that are consistent with the current anthropometric characteristics of the population of interest. This practice 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 missy sizes and sub category curvy and straight on certain measures, were created by Alvanon, Inc. and included in this standard to assist manufacturers in visualizing the posture, shape, and proportions generated by the measurements charts in the accompanying tables. (Avatar 1-6) See [Fig. 1](#) and [Fig. 2](#).

5. Apparatus

5.1 *Tape Measure*, dimensionally stable and approximately 1.5 cm (1/2-in.) wide and graduated accurately in cm (1/16 in.).

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

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

5.4 *Metal Ruler*.

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 regular undergarments normally worn.

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

6.1.4 Refer to Terminology [D 5219](#) for the location of all points to be measured.

6.2 Body Measurements:

6.2.1 *Body Weight*—Weight as measured on a calibrated scale taken with the subject in undergarments.

6.2.2 *Head Girth*—Measure the maximum horizontal circumference of the head above the ears.

6.2.3 *Neck Base Girth*—Measure the circumference of the neck, taken over the cervicale at the back and the top of the collarbone at the front.

6.2.4 *Mid-Neck Girth*—Measure the horizontal circumference of the neck, taken approximately 25 mm (1 in.) above the neck base level.

6.2.5 *Shoulder Girth*—Measure the horizontal circumference around the shoulders, taken at the front break-point level with the arms down.

6.2.6 *Chest/Bust Girth*—Measure the horizontal circumference around the body, taken under the arms and across the fullest part of the chest/bust apex including the lower portion of the shoulder blades.

6.2.7 *Under-Bust Girth*—Measure the horizontal circumference around the body under the arms and bust.

6.2.8 *Upper-Chest Girth*—Measure the horizontal circumference around the body, taken under the arms and above the fullest part of the chest/bust including the lower portion of the shoulder blades.

6.2.9 *Waist Girth*—Measure the minimum horizontal circumference around the body at waist height.

6.2.10 *High-Hip Girth*—Measure the maximum horizontal circumference around the body, taken at high hip level approximately 7.5 cm (3 in.) below the waist level including the abdominal extension.

6.2.11 *Hip/Seat Girth*—Measure the maximum horizontal circumference around the body at hip height.

6.2.12 *Thigh Girth*—Measure the maximum horizontal circumference of the upper leg, taken close to the crotch.

6.2.13 *Mid-Thigh Girth*—the maximum horizontal circumference of the upper leg, taken midway between the hip girth level and the midpoint (or crease) of the knee.

6.2.14 *Knee Girth*—Measure the maximum horizontal circumference of the knee, taken over the kneecap with the leg straight.

6.2.15 *Calf Girth*—Measure the maximum horizontal circumference of the lower leg, taken between the knee and the ankle.

6.2.16 *Ankle Girth*—Measure the maximum horizontal circumference of the ankle, taken over the greatest prominence of the anklebones.

6.2.17 *Armscye Girth*—Measure the circumference from the shoulder joint through the front break-point, the armpit, the back break-point and to the starting point, taken with the arms down.

6.2.18 *Upper-Arm Girth*—Measure the maximum circumference of the arm, taken midway between the elbow and the shoulder joints with the arm bent 1.57 rad (90°).

6.2.19 *Elbow Girth*—Measure the maximum circumference of the elbow, taken over the outer prominence of the elbow bone with the arm bent 1.57 rad (90°).

6.2.20 *Wrist Girth*—Measure the maximum circumference of the wrist, taken over the inner and outer prominence of the wrist bones.

6.2.21 *Hand Girth*—Measure the maximum circumference of the hand around the knuckles excluding the thumb, taken with the fingers together.

6.2.22 *Trunk Length (total vertical)*—Measure the circumference taken from a point on the right shoulder midway between the neck base and the shoulder joint, down the back through the crotch and up over the prominence of the right chest/bust apex to the starting point, avoiding constriction at the crotch.

6.2.23 *Height*—Measure the vertical distance from the crown of the head to the floor, taken with subject standing and without shoes.



TABLE 1 Body Measurements, Inch-Pound Units

Size	00	0	2	4	6	8	10	12	14	16	18	20
Body Weight (Mean), lb	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Body Weight (Range), lb	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Girth Measurements, in.	00	0	2	4	6	8	10	12	14	16	18	20
Head Girth	21¼	21¼	21½	21½	21¾	21¾	22	22	22¼	22¼	22½	22½
Neck Base Girth	13¼	13½	13¾	14	14¼	14½	14¾	15½	15½	15¾	16	16¾
Mid-Neck Girth	12¾	12¾	12¾	13½	13¾	13¾	13¾	14¼	14½	15	15½	16
Shoulder Girth	37½	37¾	38¾	39	39¾	40½	41¼	42	43	44¼	45½	46¾
Chest/Bust Girth	31½	31¾	33	34½	35¼	36¼	37¼	38¾	40¾	42½	44	46
Under-Bust Girth	25¾	26½	27¼	28	29	30	31	32½	34	35¼	37¾	39¾
Upper-Chest Girth	31¾	32¼	33¼	34½	35	35¾	36¾	38	39¼	40¾	42¼	43¾
Waist Girth – Curvy	23¾	24¾	25¾	26½	27	28	29	30¾	32½	34½	36¾	39
Waist Girth – Straight	25¾	26½	26¾	27½	28½	29½	30½	32¼	34	36	38¼	40½
High-Hip Girth – Curvy	29½	30¼	31½	32½	33¼	34¾	35¾	37¼	38¾	40½	42¼	44¾
High-Hip Girth – Straight	29¾	30½	31¾	32¾	34	35	36	37½	39½	40¾	42½	44½
Hip/Seat Girth – Curvy	34	34¾	35¾	37½	38¼	39¼	40¼	41¾	43¼	45	46¾	48¾
Hip/Seat Girth – Straight	33¼	33¾	35½	36¾	37½	38½	39½	41	42½	44¼	46	48
Thigh Girth – Curvy	20½	20¾	21¼	21¾	22½	22¾	23½	24	24¾	26¼	27½	28¾
Thigh Girth – Straight	20½	20½	20¾	21¼	21¾	22¼	22¾	23¾	24½	25¾	27	28¼
Mid-Thigh Girth – Curvy	18¾	18¾	19½	19½	20	20½	21	21½	22¼	23¼	24¾	26
Mid-Thigh Girth – Straight	18½	18½	18¾	19¼	19¾	20¼	20¾	21½	22½	23½	24¾	25¾
Knee Girth	12¾	12¾	13	13¾	13¾	14½	14½	15	15½	16	16½	17
Calf Girth	12½	12¼	12½	12¾	13¼	13¾	14	14½	15	15½	16	16½
Ankle Girth	8½	8¼	8¾	8¾	8¾	9½	9½	9½	9½	10½	10¾	10¾
Armhole Girth	14½	14¾	15½	15½	15¾	16	16¼	16¾	17½	18½	18¾	19¾
Upper-Arm Girth	9¾	10	10¼	10½	10¾	11½	11½	11¾	12½	12½	13	13¾
Elbow Girth	9½	9¼	9¾	9½	9½	9¾	9¾	10½	10¾	10¾	11	11¾
Wrist Girth	5½	5¼	5¾	5¾	5¾	6	6½	6¼	6¾	6½	6¾	6¾
Hand Girth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trunk Length (total vertical girth) – Curvy	57½	57½	58	58½	59	59½	60	60¾	61¼	62¾	64	65½
Trunk Length (total vertical girth) – Straight	57	57¾	57¾	58¾	58¾	59¾	59¾	60¾	61½	62¾	63¾	65
Vertical Measurements, in.	00	0	2	4	6	8	10	12	14	16	18	20
Height, in.	65½	65½	65½	65½	65½	65½	65½	65½	65½	65½	65½	65½
Head and Neck Length	9¼	9¼	9¼	9¼	9¼	9¼	9¼	9¼	9¼	9¼	9¼	9¼
Cervicale Height	56¼	56¼	56¼	56¼	56¼	56¼	56¼	56¼	56¼	56¼	56¼	56¼
Cervicale to Crotch – Curvy	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾
Cervicale to Crotch – Straight	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾
Center Back Waist Length	16½	16½	16½	16½	16½	16½	16½	16½	16½	16½	16½	16¾
Center Front Waist Length	13¾	14	14½	14¼	14¾	14½	14½	14½	14¾	14¾	15	15½
Scye Depth	5¾	5¾	5¾	6	6½	6½	6¼	6¾	6½	6¾	6¾	7
Side Waist Length	8½	8½	8¾	8¼	8½	8½	8	7¾	7¾	7¾	7¾	7¾
Waist to Hip/Seat Height – Curvy	8½	8½	8¼	8¼	8¼	8¼	8¼	8¼	8¼	8¼	8¼	8¼
Waist to Hip/Seat Height – Straight	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½
Waist to Knee Height – Curvy	22¾	22¾	23	23	23	23	23	23	23	23	23	23
Waist to Knee Height – Straight	22¾	22¾	22¾	22¾	22¾	22¾	22¾	22¾	22¾	22¾	22¾	23
Waist Height	40½	40½	40½	40½	40½	40½	40½	40½	40½	40½	40½	40½
High-Hip Height	37	37	37	37	37	37	37	37	37	37	37	37
Hip/Seat Height	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½
Crotch Height	30½	30½	30½	30½	30½	30½	30½	30½	30½	30½	30½	30½
Rise Height	10	10	10	10	10	10	10	10	10	10	10	10
Knee Height	17¾	17¾	17¾	17¾	17¾	17¾	17¾	17¾	17¾	17¾	17¾	17¾
Ankle Height	2¾	2¾	2¾	2¾	2¾	2¾	2¾	2¾	2¾	2¾	2¾	2¾
Width and Length Measurements, in.	00	0	2	4	6	8	10	12	14	16	18	20
Crotch Length (total)	24¼	24¼	24¾	25	25¼	25½	25¾	26¼	26¾	27¼	27¾	28¼
Shoulder Length	4¾	4¾	4¾	5	5	5½	5½	5½	5¼	5¼	5¾	5½
Shoulder Slope	20¾ °	20¼ °	20½ °	20°	19¾ °	19¾ °	19½ °	19¼ °	19°	18¾ °	18¾ °	18½ °
Shoulder Drop	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½
Across Back Shoulder Width	14½	14¾	14¾	15½	15¼	15½	15½	15¾	16	16¾	16¾	17½
Across Front Shoulder Width	14½	14¾	14¾	15½	15¾	15¾	15¾	16	16¼	16¾	17	17¾
Upper Back Width	13¼	13½	13¾	14	14¼	14½	14¾	14¾	15	15¾	15¾	16½
Upper Front Chest Width	12¾	12¾	12¾	13½	13¾	13¾	13¾	14	14¼	14¾	15	15¾
Back Width	12¾	13	13¼	13½	13¾	14½	14¾	14¾	14¾	15¼	15¾	16½
Front Chest Width	12¾	12¾	13½	13½	13¾	14¼	14¾	15	15½	15¾	16½	17½
Bust Point to Bust Point	6½	6¾	7	7¼	7½	7¾	8	8¼	8½	8¾	9	9¼
Neck to Bust Point	9¾	9¾	10	10½	10¼	10¾	10½	10¾	11	11¼	11½	11¾
Bust Point to Bust Point (Halter)	25¾	26	26¾	26¾	27½	27½	27½	28½	29½	29¾	30¾	31
Cervicale to Wrist Length	30½	30¼	30¾	30½	30¾	30¾	30¾	30¾	30¾	31½	31¼	31½
Shoulder and Arm Length	27¾	27¾	27¾	27¾	27¾	28	28	28	28½	28¼	28¾	28½
Arm Length	22¾	22¾	22¾	22¾	23	23	23	23	23	23	23	23
Hand Length	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hand Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Foot Length	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Foot Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A