



Standard Table of Body Measurements Relating to Women's Plus Size Figure Type, Sizes 14W–32W¹

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1. Scope

1.1 This table lists body measurements of the adult female “plus” figure type, sizes 14W through 32W. Although these are body measurements, they can be used as a baseline in designing apparel for female figures in this size range when considering such factors as fabric type, desired ease for body movement, styling, and fit.

1.2 The values stated in either acceptable SI units or inch-pound units shall be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system must be used independently of the other, without combining values in any way.

2. Referenced Documents

2.1 *ASTM Standards*:²

D 123 Terminology Relating to Textile Materials

D 5219 Terminology Relating to a Body Dimension for Apparel Sizing

2.2 *ISO Standards*:

ISO 3635-1981 Size Designation of Clothes, Definitions and Body Measurement Procedure³

ISO 8559 Garment Construction and Anthropometric Surveys-Body Dimension³

3. Terminology

3.1 *Definitions*—For definitions relating to body dimensions, refer to Terminology D 5219. For definitions of other textile terms used in this table, refer to Terminology D 123.

4. Significance and Use

4.1 The use of the body measurement information given in Table 1 will enable manufacturers to develop patterns and

garments that are consistent with the current anthropometric characteristics of the population of interest.

4.2 This table should in turn reduce or minimize consumer confusion and dissatisfaction related to apparel sizing.

4.3 For further information, refer to ISO 3635 and ISO 8559.

5. Apparatus

5.1 All apparatus are calibrated for accuracy.

5.2 *Tape Measure*, dimensionally stable and approximately 15 mm ($\frac{1}{2}$ in.) wide and graduated accurately in mm ($\frac{1}{16}$ in.) increments.

5.3 *Plastic Goniometer*, to measure the degree of shoulder slope.

5.4 *Scale*, calibrated for standard body weight.

6. Procedure

6.1 *General Procedure*:

6.1.1 Verify that measuring devices and scales are within calibration.

6.1.2 For all vertical and most horizontal measurements, measure the body while standing erect without shoes and with feet approximately 15 cm (6 in.) apart.

6.1.3 Take all body measurements over regular undergarments normally worn by the subject.

6.1.4 Take all measurements except torso circumferences, height, and weight from the same side of the body for consistency.

6.1.5 Refer to Terminology D 5219 for the location of all points to be measured (see Section 2).

6.2 *Body Measurements*:

6.2.1 *Across Back Shoulder*—Measure the horizontal distance across the back from the top of one shoulder joint to the top of the other shoulder joint, taken with the arms down.

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

6.2.3 *Ankle Height*—Measure the vertical distance from the prominence of the outer ankle bone to the floor, taken with subject standing and without shoes.

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 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.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

TABLE 1 Standard Table of Body Measurements for Women's Plus Size Figure Type, Sizes 14W–32W

Size	14W	16W	18W	20W	22W	24W	26W	28W	30W	32W
Girth Measurements, in. ^A										
Bust Girth	39½	41½	43½	45½	47½	49½	51½	53½	55½	57½
Waist Girth	31½	33½	35½	37½	39½	41½	43½	45½	47½	49½
High-Hip Girth	40	42	44	46	48	50	52	54	56	58
Hip Girth	41½	43½	45½	47½	49½	51½	53½	55½	57½	59½
Mid-Neck Girth	15¼	15½	16	16¾	16¾	17½	17½	17¾	18¼	18½
Neck Base Girth	15¾	16¼	16¾	17¼	17¾	18¼	18¾	19¼	19¾	20¼
Armhole Girth	17¼	17¾	18½	19½	19¾	20¾	21	21½	22¼	22¾
Upper-Arm Girth	12½	13½	13¾	14¾	15	15½	16¼	16¾	17½	18½
Elbow Girth	10½	10¾	11¼	11¾	12	12¾	12¾	13¾	13½	13¾
Wrist Girth	6½	6½	6¾	6¾	7	7½	7¼	7½	7½	7½
Thigh Girth (Max)	25¼	26½	27¾	29	30¼	31½	32¾	34	35¼	36½
Thigh Girth (Mid)	21¾	23	24¼	25½	26¾	28	29¼	30½	31¾	33
Knee Girth	16	16½	17	17½	18	18½	19	19½	20	20½
Calf Girth	16¼	16¾	17¼	17¾	18¼	18¾	19¼	19¾	20¼	20¾
Ankle Girth	10	10¼	10½	10¾	11	11¼	11½	11¾	12	12¼
Trunk Length (Total Vertical)	63	64½	66	67½	69	70½	72	73½	75	76½
Crotch Length (Total)	28½	29¼	30	30¾	31½	32¼	33	33¾	34½	35¼
Vertical Measurements, in. ^A										
Cervicale Height	57	57¾	57¾	58½	58½	58¾	59¼	59¾	60	60¾
Waist Height	40¾	40¾	41	41½	41½	41¾	41½	41½	41¾	41¾
High-Hip Height	36¾	36½	36¾	36¾	36¾	37	37½	37¼	37¾	37½
Hip Height	32½	32¼	32¾	32½	32½	32¾	32¾	33	33¾	33¼
Crotch Height	30	30	30	30	30	30	30	30	30	30
Knee Height	18¼	18¼	18¼	18¼	18¼	18¼	18¼	18¼	18¼	18¼
Ankle Height	3	3	3	3	3	3	3	3	3	3
Char Back Waist Length	16¼	16½	16¾	17	17¼	17½	17¾	18	18¼	18½
Char Front Waist Length	15¼	15½	15¾	16	16¼	16½	16¾	17	17¼	17½
Width and Length Measurements, in. ^A										
Across Back Shoulder	15¼	15¾	16¼	16¾	17¼	17¾	18¼	18¾	19¼	19¾
Back Width	14¾	15¼	15¾	16¼	16¾	17¼	17¾	18¼	18¾	19¼
Front Chest Width	13¾	14¼	14¾	15¼	15¾	16¼	16¾	17¼	17¾	18¼
Shoulder Length	4¾	4¾	5	5½	5½	5½	5½	5½	5½	5½
Shoulder Slope (degrees)	24	24	24	24	24	24	24	24	24	24
Arm Length Shldr To Wrist	23	23¾	23¾	23¾	23¾	23¾	24½	24½	24½	24½
Arm Length Shldr To Elbow	13½	13¾	13¾	13¾	14	14½	14¼	14¾	14½	14¾
Bust Point to Bust Point	8	8¼	8½	8¼	9	9¼	9½	9¾	10	10¼
Neck to Bust Point	11	11¾	11¾	12½	12½	12¾	13¼	13¾	14	14¾
Scye Depth	8	8½	8¼	8¾	8½	8½	8¾	8¾	9	9½
Size	14W	16W	18W	20W	22W	24W	26W	28W	30W	32W
Girth Measurements, cm ^B										
Bust Girth	100.3	105.4	110.5	115.6	120.7	125.7	130.8	135.9	141.0	146.1
Waist Girth	80.0	85.1	90.2	95.3	100.3	105.4	110.5	115.6	120.7	125.7
High-Hip Girth	101.6	106.7	111.8	116.8	121.9	127.0	132.1	137.2	142.2	147.3
Hip Girth	105.4	110.5	115.6	120.7	125.7	130.8	135.9	141.0	146.1	151.1
Mid-Neck Girth	38.7	39.7	40.6	41.6	42.5	43.5	44.5	45.4	46.4	47.3
Neck Base Girth	40.0	41.3	42.5	43.8	45.1	46.4	47.6	48.9	50.2	51.4
Armhole Girth	43.8	45.4	47.0	48.6	50.2	51.8	53.3	54.9	56.5	58.1
Upper-Arm Girth	31.8	33.3	34.9	36.5	38.1	39.7	41.3	42.9	44.5	46.0
Elbow Girth	26.7	27.6	28.6	29.5	30.5	31.4	32.4	33.3	34.3	35.2
Wrist Girth	16.5	16.8	17.1	17.5	17.8	18.1	18.4	18.7	19.1	19.4
Thigh Girth (Max)	64.1	67.3	70.5	73.7	76.8	80.0	83.2	86.4	89.5	92.7
Thigh Girth (Mid)	55.2	58.4	61.6	64.8	67.9	71.1	74.3	77.5	80.6	83.8
Knee Girth	40.6	41.9	43.2	44.5	45.7	47.0	48.3	49.5	50.8	52.1
Calf Girth	41.3	42.5	43.8	45.1	46.4	47.6	48.9	50.2	51.4	52.7
Ankle Girth	25.4	26.0	26.7	27.3	27.9	28.6	29.2	29.8	30.5	31.1
Trunk Length (Total Vertical)	160.0	163.8	167.6	171.5	175.3	179.1	182.9	186.7	190.5	194.3
Crotch Length (Total)	72.4	74.3	76.2	78.1	80.0	81.9	83.8	85.7	87.6	89.5
Vertical Measurements, cm ^B										
Cervicale Height	144.8	145.7	146.7	147.6	148.6	149.5	150.5	151.4	152.4	153.4
Waist Height	103.5	103.8	104.1	104.5	104.8	105.1	105.4	105.7	106.0	106.4
High-Hip Height	92.4	92.7	93.0	93.3	93.7	94.0	94.3	94.6	94.9	95.3
Hip Height	81.6	81.9	82.2	82.6	82.9	83.2	83.5	83.8	84.1	84.5
Crotch Height	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2
Knee Height	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4
Ankle Height	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Char Back Waist Length	41.3	41.9	42.5	43.2	43.8	44.5	45.1	45.7	46.4	47.0
Char Front Waist Length	38.7	39.4	40.0	40.6	41.3	41.9	42.5	43.2	43.8	44.5

TABLE 1 *Continued*

Size	14W	16W	18W	20W	22W	24W	26W	28W	30W	32W
Width and Length Measurements, cm ^B										
Across Back Shoulder	38.7	40.0	41.3	42.5	43.8	45.1	46.4	47.6	48.9	50.2
Back Width	37.5	38.7	40.0	41.3	42.5	43.8	45.1	46.4	47.6	48.9
Front Chest Width	34.9	36.2	37.5	38.7	40.0	41.3	42.5	43.8	45.1	46.4
Shoulder Length	12.4	12.5	12.7	12.9	13.0	13.2	13.3	13.5	13.7	13.8
Shoulder Slope (degrees)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Arm Length Shldr To Wrist	58.4	58.9	59.4	59.8	60.3	60.8	61.3	61.8	62.2	62.7
Arm Length Shldr To Elbow	34.3	34.6	34.9	35.2	35.6	35.9	36.2	36.5	36.8	37.1
Bust Point to Bust Point	20.3	21.0	21.6	22.2	22.9	23.5	24.1	24.8	25.4	26.0
Neck to Bust Point	27.9	28.9	29.8	30.8	31.8	32.7	33.7	34.6	35.6	36.5
Scye Depth	20.3	20.6	21.0	21.3	21.6	21.9	22.2	22.5	22.9	23.2

^A Average stature for this size range is 66 in.

^B Average stature for this size range is 167.6 cm.

6.2.4 *Arm Length*—Measure the distance from the top of the shoulder joint along the outside of the arm over the elbow to the prominent wrist bone, taken with the arm bent (1.57 radius or 90 degrees) and the hand placed on the hip.

6.2.5 *Armscye Girth*—Measure the circumference taken 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.

6.2.6 *Back Width*—Measure the horizontal distance across the back from back break-point to back break-point over the shoulder blades, taken with the arms down.

6.2.7 *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.

6.2.8 *Bust Point to Bust Point*—Measure the horizontal distance from bust apex to bust apex, taken with the arms down.

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

6.2.10 *Center Back Waist Length*—Measure the distance from the cervicale to the center back waist level, taken along the spine (contour).

6.2.11 *Center Front Waist Length*—Measure the distance from the center front neck base line to the center front waist level (contour).

6.2.12 *Cervicale Height*—Measure the vertical distance from the cervicale to the floor, taken with subject standing and without shoes.

6.2.13 *Crotch Height*—Measure the vertical distance from the midpoint of the crotch to the floor, taken with the subject standing and without shoes.

6.2.14 *Crotch Length (Total)*—Measure the distance from waist level at the center front, through the crotch and to the waist level at the center back, avoiding constriction at the crotch.

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

6.2.16 *Front Chest Width*—Measure the horizontal distance across the chest from the front break-point, taken with the arms down.

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

6.2.18 *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.

6.2.19 *High-Hip Height*—Measure the distance from the high-hip girth level to the hip girth level along the side of the body (contour) then vertically to the floor, taken with the subject standing and without shoes.

6.2.20 *Hip Girth*—Measure the maximum horizontal circumference around the body at hip height.

6.2.21 *Hip Height*—Measure the vertical distance from the hip girth level to the floor along the side of the body, taken with subject standing and without shoes.

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

6.2.23 *Knee Height*—Measure the vertical distance from the midpoint of the back of the knee (or crease) to the floor, taken with subject standing and without shoes.

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

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

6.2.26 *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.

6.2.27 *Neck to Bust Point*—Measure the distance from the side of the neck base to the bust apex (contour), taken with the arms down.

6.2.28 *Scye Depth*—Measure the vertical distance from the cervicale to the back break-point level, taken with the arms down.

6.2.29 *Shoulder Length*—Measure the distance from the side of the neck base to the top of the shoulder joint, taken with the arm down.

6.2.30 *Shoulder Slope*—Measure the degree of difference between the shoulder slant and the horizontal line that originates at the side neck base, taken with a goniometer positioned on the shoulder and moved until the baseline is parallel to the floor.

6.2.31 *Shoulder to Elbow Length*—Measure the distance from the top of the shoulder joint along the outside of the arm to the prominent point of the elbow, taken with the arm bent 1.57 radius (90 degrees) and the hand placed on the hip.

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

6.2.33 *True Rise*—Measure the vertical distance from the waist level at the side of the body to the flat surface, taken with subject sitting on hard, flat surface (crotch depth).

6.2.34 *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.

6.2.35 *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 radius (90 degrees).

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

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

7. Keywords

7.1 adult female; apparel; body measurements; garment sizes; women's plus

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