

## Law Enforcement Anthropometry Measurements

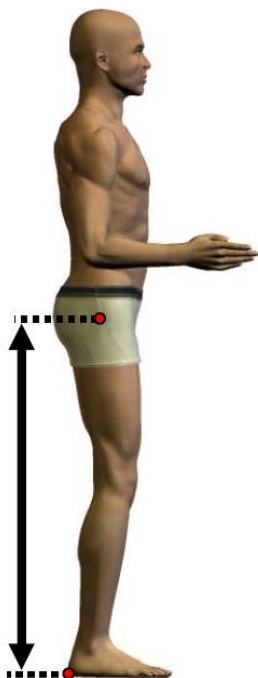
*Measured Without Gear (Standing)*

### 1. DIMENSION: Buttock height, standing

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	914.3	36.0	859.0	33.8
SE Mean	1.8	0.1	3.0	0.1
STD	50.5	2.0	43.6	1.7

The vertical distance between a standing surface and the level of the buttock point, right lateral landmark, is measured with an anthropometer at the right side of the thigh.

The subject stands erect with the heels together and the weight distributed equally on both feet.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	807	744
	2	818	753
	3	826	774
	5	840	787
	10	859	798
	20	872	822
	25	880	831
	50	910	861
	75	943	887
	80	952	892
	90	980	915
	95	1003	930
	97	1017	935
	98	1030	942
	99	1057	950
<b>English (in)</b>			
	1	31.8	29.3
	2	32.2	29.6
	3	32.5	30.5
	5	33.1	31.0
	10	33.8	31.4
	20	34.3	32.4
	25	34.6	32.7
	50	35.8	33.9
	75	37.1	34.9
	80	37.5	35.1
	90	38.6	36.0
	95	39.5	36.6
	97	40.0	36.8
	98	40.6	37.1
	99	41.6	37.4

**2. DIMENSION: Chest breadth, standing**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	372.5	14.7	322.0	12.7
<b>SE Mean</b>	1.3	0.1	2.1	0.1
<b>STD</b>	35.5	1.4	31.3	1.2

The maximum horizontal breadth of the chest at the level of the right bust point on women or the nipple on men is measured with a beam caliper.

The subject stands erect looking straight ahead with the heels together, the weight distributed equally on both feet. The measurement is taken at the maximum point of quiet respiration.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	305	256
	2	310	263
	3	315	265
	5	320	273
	10	328	285
	20	344	295
	25	349	300
	50	368	321
	75	393	341
	80	400	346
	90	422	361
	95	439	367
	97	450	396
	98	458	397
	99	470	402
<b>English (in)</b>			
	1	12.0	10.1
	2	12.2	10.4
	3	12.4	10.4
	5	12.6	10.7
	10	12.9	11.2
	20	13.5	11.6
	25	13.7	11.8
	50	14.5	12.6
	75	15.5	13.4
	80	15.7	13.6
	90	16.6	14.2
	95	17.3	14.4
	97	17.7	15.6
	98	18.0	15.6
	99	18.5	15.8

### 3. DIMENSION: Chest circumference, standing

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	1111.8	43.8	995.2	39.2
<b>SE Mean</b>	3.7	0.1	7.0	0.3
<b>STD</b>	101.0	4.0	104.0	4.1

**The maximum horizontal circumference of the chest at the fullest part of the breast is measured with a tape.**

The subject stands erect looking straight ahead. The shoulders and upper extremities are relaxed. The measurement is taken at the maximum point of quiet respiration.



	<b>Percentiles</b>	<b>MEN Quantile</b>	<b>WOMEN Quantile</b>
<b>Metric (mm)</b>			
	1	920	796
	2	925	799
	3	944	810
	5	964	828
	10	986	860
	20	1026	909
	25	1041	926
	50	1102	985
	75	1172	1065
	80	1193	1080
	90	1245	1126
	95	1296	1167
	97	1337	1222
	98	1350	1229
	99	1377	1244
<b>English (in)</b>			
	1	36.2	31.3
	2	36.4	31.5
	3	37.2	31.9
	5	38.0	32.6
	10	38.8	33.9
	20	40.4	35.8
	25	41.0	36.5
	50	43.4	38.8
	75	46.1	41.9
	80	47.0	42.5
	90	49.0	44.3
	95	51.0	45.9
	97	52.6	48.1
	98	53.1	48.4
	99	54.2	49.0

#### 4. DIMENSION: Chest depth, standing

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	281.3	11.1	268.6	10.6
SE Mean	1.1	0.0	2.5	0.1
STD	29.9	1.2	36.2	1.4

The horizontal distance between the chest, at the level of the right bust point on women or the nipple on men, and the back at the same level is measured with a beam caliper.

The subject stands erect looking straight ahead. The shoulders and upper extremities are relaxed. The measurement is taken at the maximum point of quiet respiration.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	223	197
	2	225	202
	3	229	208
	5	237	213
	10	245	224
	20	257	240
	25	260	244
	50	279	265
	75	299	290
	80	305	305
	90	322	319
	95	336	334
	97	345	343
	98	348	350
	99	355	355
<b>English (in)</b>			
	1	8.8	7.8
	2	8.9	8.0
	3	9.0	8.2
	5	9.3	8.4
	10	9.6	8.8
	20	10.1	9.4
	25	10.2	9.6
	50	11.0	10.4
	75	11.8	11.4
	80	12.0	12.0
	90	12.7	12.6
	95	13.2	13.1
	97	13.6	13.5
	98	13.7	13.8
	99	14.0	14.0

**5. DIMENSION: Crotch height, standing**

	MEN		WOMEN	
<b>Sample Size</b>	755		218	
<b>Weighted Size</b>	755.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	841.0	33.1	793.9	31.3
<b>SE Mean</b>	1.9	0.1	3.0	0.1
<b>STD</b>	51.0	2.0	43.8	1.7

**Vertical distance from the standing surface to the crotch. The measurement is taken with an anthropometer.**

Subject stands erect with feet slightly apart.



	<b>Percentiles</b>	<b>MEN Quantile</b>	<b>WOMEN Quantile</b>
<b>Metric (mm)</b>			
	1	728	698
	2	737	708
	3	750	710
	5	758	721
	10	778	738
	20	801	754
	25	808	764
	50	838	795
	75	874	823
	80	881	829
	90	910	853
	95	923	869
	97	940	877
	98	949	878
	99	960	895
<b>English (in)</b>			
	1	28.7	27.5
	2	29.0	27.9
	3	29.5	28.0
	5	29.8	28.4
	10	30.6	29.1
	20	31.5	29.7
	25	31.8	30.1
	50	33.0	31.3
	75	34.4	32.4
	80	34.7	32.6
	90	35.8	33.6
	95	36.3	34.2
	97	37.0	34.5
	98	37.4	34.6
	99	37.8	35.2

**6. DIMENSION: Foot breadth, horizontal, standing**

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	105.2	4.1	96.1	3.8
SE Mean	0.2	0.0	0.3	0.0
STD	5.7	0.2	5.2	0.2

The maximum horizontal distance across the right foot perpendicular to its long axis is measured between the inside and the outside of the foot.

The subject stands with the weight distributed equally on both feet.



	Percentiles	MEN Quantile	WOMEN Quantile
Metric (mm)			
	1	93	84
	2	94	86
	3	95	87
	5	97	88
	10	98	90
	20	100	92
	25	101	93
	50	105	96
	75	109	99
	80	110	100
	90	113	103
	95	114	104
	97	117	106
	98	118	108
	99	119	109
English (in)			
	1	3.7	3.3
	2	3.7	3.4
	3	3.7	3.4
	5	3.8	3.5
	10	3.9	3.5
	20	3.9	3.6
	25	4.0	3.7
	50	4.1	3.8
	75	4.3	3.9
	80	4.3	3.9
	90	4.4	4.1
	95	4.5	4.1
	97	4.6	4.2
	98	4.6	4.3
	99	4.7	4.3

**7. DIMENSION: Foot length, standing**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	269.0	10.6	243.5	9.6
<b>SE Mean</b>	0.5	0.0	0.8	0.0
<b>STD</b>	13.7	0.5	11.8	0.5

The distance between the back-most point of the right heel and the tip of the longest toe is measured to the long axis of the foot.

The subject stands with the weight distributed equally on both feet.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	238	214
	2	240	217
	3	243	220
	5	247	222
	10	252	227
	20	258	234
	25	260	236
	50	268	244
	75	277	252
	80	280	253
	90	287	258
	95	292	260
	97	297	263
	98	300	268
	99	305	268
<b>English (in)</b>			
	1	9.4	8.4
	2	9.4	8.5
	3	9.6	8.7
	5	9.7	8.7
	10	9.9	8.9
	20	10.2	9.2
	25	10.2	9.3
	50	10.6	9.6
	75	10.9	9.9
	80	11.0	10.0
	90	11.3	10.2
	95	11.5	10.2
	97	11.7	10.4
	98	11.8	10.6
	99	12.0	10.6

## 8. DIMENSION: Hip circumference

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	1068.0	42.0	1054.7	41.5
<b>SE Mean</b>	3.1	0.1	7.1	0.3
<b>STD</b>	85.8	3.4	104.1	4.1

**Maximal horizontal circumference over the buttocks.**

The subject stands erect with heels together.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	914	857
	2	927	858
	3	933	874
	5	946	894
	10	972	933
	20	1000	967
	25	1011	983
	50	1055	1052
	75	1112	1116
	80	1129	1145
	90	1189	1178
	95	1232	1235
	97	1257	1264
	98	1275	1315
	99	1314	1358
<b>English (in)</b>			
	1	36.0	33.7
	2	36.5	33.8
	3	36.7	34.4
	5	37.2	35.2
	10	38.3	36.7
	20	39.4	38.1
	25	39.8	38.7
	50	41.5	41.4
	75	43.8	43.9
	80	44.4	45.1
	90	46.8	46.4
	95	48.5	48.6
	97	49.5	49.8
	98	50.2	51.8
	99	51.7	53.5

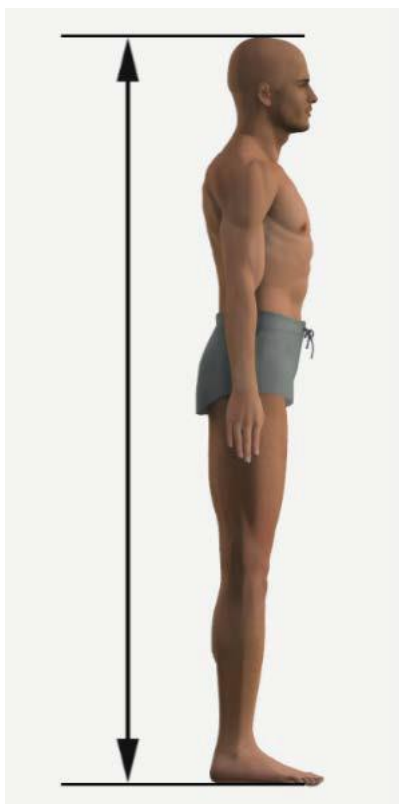


## 9. DIMENSION: Stature

	MEN		WOMEN	
<b>Sample Size</b>	756		217	
<b>Weighted Size</b>	756.0		217.2	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	1776.1	69.9	1651.1	65.0
<b>SE Mean</b>	2.6	0.1	4.3	0.2
<b>STD</b>	71.4	2.8	63.8	2.5

**Vertical distance from the standing surface to the highest point of the head (vertex).**

The subject stands erect with feet placed on pre-marked footprints with approximately ten centimeters apart at the inside of the heel and 33° rotation at the toes.



	<b>Percentiles</b>	<b>MEN Quantile</b>	<b>WOMEN Quantile</b>
<b>Metric (mm)</b>			
	1	1613	1507
	2	1637	1535
	3	1649	1538
	5	1664	1558
	10	1686	1570
	20	1719	1596
	25	1728	1603
	50	1772	1648
	75	1820	1692
	80	1834	1700
	90	1868	1741
	95	1898	1770
	97	1919	1786
	98	1936	1787
	99	1951	1807
<b>English (in)</b>			
	1	63.5	59.3
	2	64.4	60.4
	3	64.9	60.6
	5	65.5	61.3
	10	66.4	61.8
	20	67.7	62.8
	25	68.0	63.1
	50	69.8	64.9
	75	71.7	66.6
	80	72.2	66.9
	90	73.5	68.5
	95	74.7	69.7
	97	75.6	70.3
	98	76.2	70.4
	99	76.8	71.1

**10. DIMENSION: Thigh circumference, standing**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	653.0	25.7	644.2	25.4
<b>SE Mean</b>	2.1	0.1	4.2	0.2
<b>STD</b>	56.6	2.2	62.6	2.5

**Circumference of the right thigh at its juncture with the buttock.**

The subject stands erect with legs spread apart just enough so that the thighs do not touch.



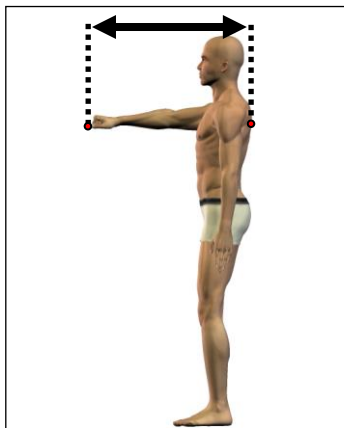
	<b>Percentiles</b>	<b>MEN Quantile</b>	<b>WOMEN Quantile</b>
<b>Metric (mm)</b>			
	1	533	509
	2	550	528
	3	555	531
	5	564	545
	10	588	564
	20	608	590
	25	614	598
	50	648	645
	75	685	686
	80	693	700
	90	728	727
	95	751	747
	97	778	758
	98	795	770
	99	811	810
<b>English (in)</b>			
	1	21.0	20.0
	2	21.7	20.8
	3	21.9	20.9
	5	22.2	21.5
	10	23.1	22.2
	20	23.9	23.2
	25	24.2	23.5
	50	25.5	25.4
	75	27.0	27.0
	80	27.3	27.6
	90	28.7	28.6
	95	29.6	29.4
	97	30.6	29.8
	98	31.3	30.3
	99	31.9	31.9

### 11. DIMENSION: Thumbtip reach, standing

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	829.7	32.7	758.9	29.9
SE Mean	1.8	0.1	2.8	0.1
STD	48.3	1.9	41.0	1.6

The horizontal distance from a back wall to the tip of the right thumb is measured on a wall scale.

The subject stands erect in a corner, looking straight ahead with the feet together and the heels 20 cm from the back wall. The buttocks and shoulders are against the wall. The right arm and hand, palm down, are stretched forward horizontally along a scale on the side wall. The thumb continues the horizontal line of the arm, and the remaining fingers curve around to form a fist. The participant's right shoulder is held against the rear wall.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	726	670
	2	740	678
	3	744	682
	5	754	690
	10	770	706
	20	790	728
	25	798	732
	50	826	754
	75	858	790
	80	868	798
	90	896	812
	95	918	822
	97	930	828
	98	940	836
	99	960	842
<b>English (in)</b>			
	1	28.6	26.4
	2	29.1	26.7
	3	29.3	26.9
	5	29.7	27.2
	10	30.3	27.8
	20	31.1	28.7
	25	31.4	28.8
	50	32.5	29.7
	75	33.8	31.1
	80	34.2	31.4
	90	35.3	32.0
	95	36.1	32.4
	97	36.6	32.6
	98	37.0	32.9
	99	37.8	33.1

**12. DIMENSION: Waist circumference, at omphalion, standing**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	1026.3	40.4	914.3	36.0
<b>SE Mean</b>	4.7	0.2	8.9	0.3
<b>STD</b>	129.1	5.1	131.0	5.2

**Horizontal circumference of the waist , passing over all omphalion landmarks, is measured with a tape.**

The subject stands erect, looking straight ahead. The heels are together with the weight distributed equally on both feet. The measurement is taken at the maximum point of quiet respiration.



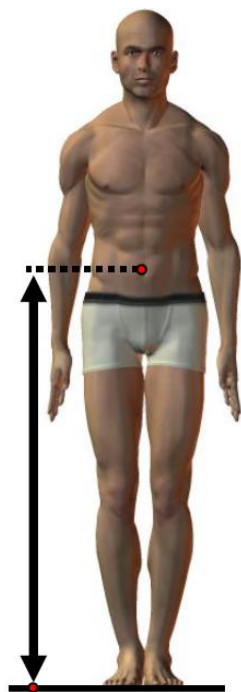
	<b>Percentiles</b>	<b>MEN Quantile</b>	<b>WOMEN Quantile</b>
<b>Metric (mm)</b>			
	1	773	652
	2	802	688
	3	814	698
	5	833	721
	10	874	750
	20	917	802
	25	937	820
	50	1011	902
	75	1100	999
	80	1130	1022
	90	1206	1064
	95	1261	1122
	97	1322	1219
	98	1333	1240
	99	1374	1288
<b>English (in)</b>			
	1	30.4	25.7
	2	31.6	27.1
	3	32.0	27.5
	5	32.8	28.4
	10	34.4	29.5
	20	36.1	31.6
	25	36.9	32.3
	50	39.8	35.5
	75	43.3	39.3
	80	44.5	40.2
	90	47.5	41.9
	95	49.6	44.2
	97	52.0	48.0
	98	52.5	48.8
	99	54.1	50.7

**13. DIMENSION: Waist height (Omphalion), standing**

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	1058.1	41.7	985.2	38.8
SE Mean	2.1	0.1	3.4	0.1
STD	57.1	2.2	50.6	2.0

The vertical distance between a standing surface and the anterior omphalion landmark is measured with an anthropometer.

The subject stands erect looking straight ahead. The heels are together with weight distributed equally on both feet. The shoulders and upper extremities are relaxed. The measurement is taken at the maximum point of quiet respiration.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	934	872
	2	942	885
	3	954	889
	5	966	911
	10	985	924
	20	1011	935
	25	1020	949
	50	1058	986
	75	1094	1014
	80	1106	1025
	90	1132	1053
	95	1153	1071
	97	1164	1092
	98	1179	1093
	99	1193	1109
<b>English (in)</b>			
	1	36.8	34.3
	2	37.1	34.8
	3	37.6	35.0
	5	38.0	35.9
	10	38.8	36.4
	20	39.8	36.8
	25	40.2	37.4
	50	41.7	38.8
	75	43.1	39.9
	80	43.5	40.4
	90	44.6	41.5
	95	45.4	42.2
	97	45.8	43.0
	98	46.4	43.0
	99	47.0	43.7

**14. DIMENSION: Weight, standing**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (kg)</b>	<b>English (lbs)</b>	<b>Metric (kg)</b>	<b>English (lbs)</b>
<b>Mean</b>	95.3	210.2	74.9	165.2
<b>SE Mean</b>	0.6	1.4	1.0	2.1
<b>STD</b>	17.3	38.1	14.1	31.0

The weight of the participant is taken to the nearest tenth of a kilogram.

The subject stands on the platform of a scale with the weight distributed evenly on both feet.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (kg)</b>			
	1	65.2	45.8
	2	66.5	47.6
	3	68.9	51.2
	5	70.9	53.1
	10	76.7	58.7
	20	81.7	62.9
	25	83.6	64.3
	50	92.8	73.5
	75	103.6	84.4
	80	107.6	87.0
	90	118.4	92.4
	95	130.5	98.3
	97	136.7	107.1
	98	139.6	108.0
	99	148.0	117.3
<b>English (lbs)</b>		.	.
	1	143.7	101.0
	2	146.6	104.9
	3	151.9	112.9
	5	156.3	117.1
	10	169.1	129.4
	20	180.1	138.7
	25	184.3	141.8
	50	204.6	162.0
	75	228.4	186.1
	80	237.2	191.8
	90	261.0	203.7
	95	287.7	216.7
	97	301.4	236.1
	98	307.8	238.1
	99	326.3	258.6

*Measured Without Gear (Seated)***15. DIMENSION: Bideltoid breadth, sitting**

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	514.1	20.2	452.1	17.8
SE Mean	1.2	0.0	1.9	0.1
STD	32.6	1.3	28.2	1.1

**The maximum horizontal distance between the lateral margins of the upper arms on the deltoid muscles is measured with a beam caliper over officer gear.**

The subject sits erect, looking straight ahead. The shoulders and upper arms are relaxed and the forearms and hands are extended forward horizontally with the palms facing each other. The measurement is taken at the maximum point of quiet respiration.



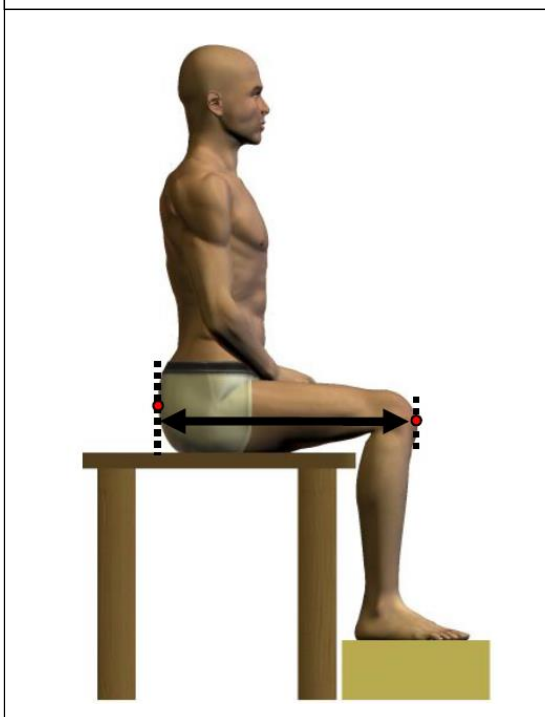
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	442	385
	2	456	392
	3	458	400
	5	464	404
	10	475	416
	20	487	431
	25	491	435
	50	511	452
	75	533	468
	80	541	476
	90	559	486
	95	571	494
	97	581	503
	98	587	521
	99	592	531
<b>English (in)</b>			
	1	17.4	15.2
	2	18.0	15.4
	3	18.0	15.7
	5	18.3	15.9
	10	18.7	16.4
	20	19.2	17.0
	25	19.3	17.1
	50	20.1	17.8
	75	21.0	18.4
	80	21.3	18.7
	90	22.0	19.1
	95	22.5	19.4
	97	22.9	19.8
	98	23.1	20.5
	99	23.3	20.9

**16. DIMENSION: Buttock-knee length, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	630.9	24.8	600.2	23.6
<b>SE Mean</b>	1.2	0.0	2.1	0.1
<b>STD</b>	34.3	1.3	31.4	1.2

The horizontal distance between a buttock plate placed at the most posterior point of either buttock and the anterior point of the right knee.

The subject is in the anthropometric sitting position but with arms relaxed on the lap.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (kg)</b>			
	1	556	524
	2	569	528
	3	574	533
	5	582	547
	10	589	559
	20	603	575
	25	608	579
	50	629	601
	75	651	623
	80	657	627
	90	677	638
	95	688	648
	97	698	653
	98	713	660
	99	735	666
<b>English (lbs)</b>			
	1	21.9	20.6
	2	22.4	20.8
	3	22.6	21.0
	5	22.9	21.5
	10	23.2	22.0
	20	23.7	22.6
	25	23.9	22.8
	50	24.8	23.7
	75	25.6	24.5
	80	25.9	24.7
	90	26.7	25.1
	95	27.1	25.5
	97	27.5	25.7
	98	28.1	26.0
	99	28.9	26.2

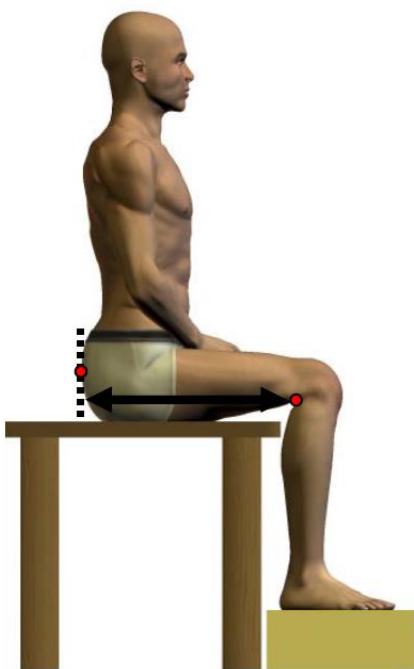


**17. DIMENSION: Buttock-popliteal length, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	514.0	20.2	492.7	19.4
<b>SE Mean</b>	1.1	0.0	1.8	0.1
<b>STD</b>	29.9	1.2	26.9	1.1

The horizontal distance between a buttock plate placed at the most posterior point on either buttock and the back of the right knee (the popliteal fossa at the dorsal juncture of the calf and thigh) is measured with an anthropometer.

The subject sits erect. The thighs are parallel and the knees flexed 90° with the feet in line with the thighs.



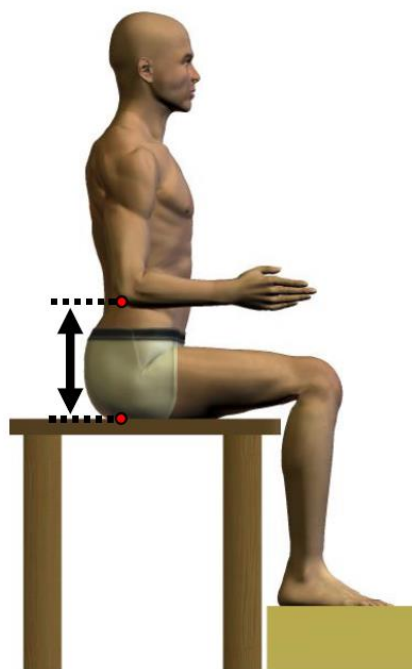
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	453	433
	2	457	437
	3	463	441
	5	469	445
	10	478	459
	20	488	470
	25	493	473
	50	513	492
	75	531	513
	80	537	517
	90	552	528
	95	569	531
	97	573	540
	98	584	542
	99	603	548
<b>English (in)</b>			
	1	17.8	17.0
	2	18.0	17.2
	3	18.2	17.4
	5	18.5	17.5
	10	18.8	18.1
	20	19.2	18.5
	25	19.4	18.6
	50	20.2	19.4
	75	20.9	20.2
	80	21.1	20.4
	90	21.7	20.8
	95	22.4	20.9
	97	22.6	21.3
	98	23.0	21.3
	99	23.7	21.6

**18. DIMENSION: Elbow rest height, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	254.3	10.0	247.9	9.8
<b>SE Mean</b>	1.1	0.0	1.8	0.1
<b>STD</b>	29.1	1.1	26.5	1.0

**The vertical distance between a sitting surface and the olecranon landmark on the bottom of the flexed right elbow.**

The subject sits erect on a flat surface looking straight ahead. The measurement is taken at the maximum point of quiet respiration.



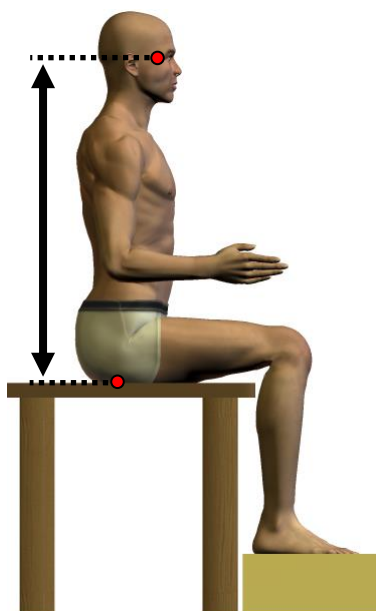
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	182	185
	2	190	190
	3	196	196
	5	205	205
	10	217	214
	20	230	228
	25	236	232
	50	255	247
	75	273	265
	80	279	269
	90	293	282
	95	301	296
	97	308	302
	98	313	306
	99	320	309
<b>English (in)</b>			
	1	7.2	7.3
	2	7.5	7.5
	3	7.7	7.7
	5	8.1	8.1
	10	8.5	8.4
	20	9.1	9.0
	25	9.3	9.1
	50	10.0	9.7
	75	10.7	10.4
	80	11.0	10.6
	90	11.5	11.1
	95	11.9	11.7
	97	12.1	11.9
	98	12.3	12.0
	99	12.6	12.2

**19. DIMENSION: Eye height, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	809.2	31.9	760.7	30.0
<b>SE Mean</b>	1.2	0.0	2.1	0.1
<b>STD</b>	33.6	1.3	31.0	1.2

**The vertical distance between a sitting surface and the ectocanthus landmark is measured with an anthropometer.**

The subject sits erect with the head in the Frankfurt plane. The shoulders and upper arms are relaxed, and the forearms and hands are extended forward horizontally with the palms facing each other. The thighs are parallel, and the knees are flexed 90° with the feet in line with the thighs. The measurement is taken at the maximum point of quiet respiration.

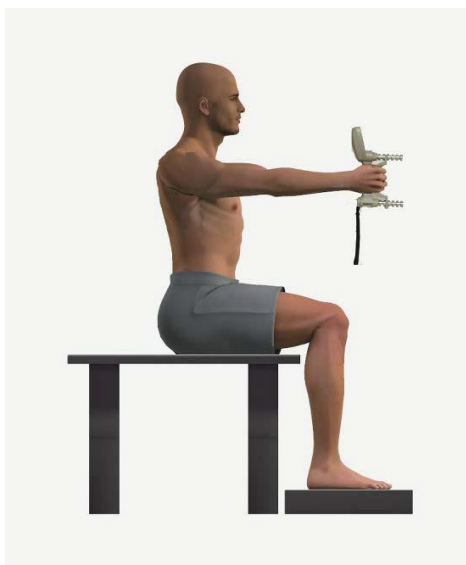


	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	732	698
	2	737	700
	3	746	701
	5	756	711
	10	766	723
	20	780	738
	25	786	742
	50	809	757
	75	832	783
	80	838	788
	90	854	800
	95	866	814
	97	873	827
	98	877	830
	99	887	837
<b>English (in)</b>			
	1	28.8	27.5
	2	29.0	27.6
	3	29.4	27.6
	5	29.8	28.0
	10	30.2	28.5
	20	30.7	29.1
	25	30.9	29.2
	50	31.9	29.8
	75	32.8	30.8
	80	33.0	31.0
	90	33.6	31.5
	95	34.1	32.0
	97	34.4	32.6
	98	34.5	32.7
	99	34.9	33.0

**20. DIMENSION: Grip strength, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (kg)</b>	<b>English (lbs)</b>	<b>Metric (kg)</b>	<b>English (lbs)</b>
<b>Mean</b>	49.4	108.9	32.1	70.8
<b>SE Mean</b>	0.4	0.8	0.4	0.9
<b>STD</b>	9.9	21.7	6.2	13.6

The subject squeezes a force measuring instrument (dynamometer) with their predominant hand using his/her maximum force.



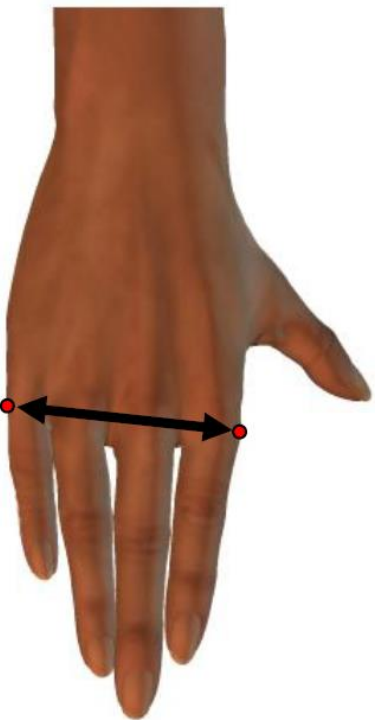
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (kg)</b>			
	1	28	17
	2	31	19
	3	33	20
	5	35	22
	10	37	25
	20	41	27
	25	43	28
	50	49	32
	75	55	36
	80	57	37
	90	62	40
	95	67	41
	97	70	43
	98	71	44
	99	77	48
<b>English (lbs)</b>			
	1	61.7	37.5
	2	68.3	41.9
	3	72.8	44.1
	5	77.2	48.5
	10	81.6	55.1
	20	90.4	59.5
	25	94.8	61.7
	50	108.0	70.5
	75	121.3	79.4
	80	125.7	81.6
	90	136.7	88.2
	95	147.7	90.4
	97	154.3	94.8
	98	156.5	97.0
	99	169.8	105.8

## 21. DIMENSION: Hand breadth

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	90.0	3.5	79.8	3.1
SE Mean	0.2	0.0	0.3	0.0
STD	4.7	0.2	4.0	0.2

**Breadth of the right hand between the landmarks at metacarpale II and metacarpale V.**

The fingers are together and the thumb is held away from the hand at about a 45-degree angle. The fingers are parallel to the long axis of the forearm.



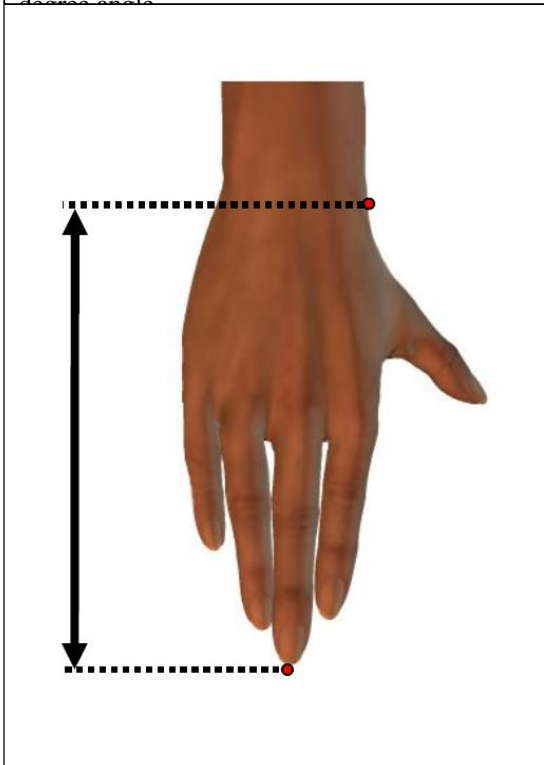
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	80	70
	2	81	71
	3	82	72
	5	82	73
	10	84	75
	20	86	77
	25	87	77
	50	90	80
	75	93	83
	80	94	83
	90	96	85
	95	98	86
	97	100	87
	98	100	88
	99	101	90
<b>English (in)</b>			
	1	3.1	2.8
	2	3.2	2.8
	3	3.2	2.8
	5	3.2	2.9
	10	3.3	3.0
	20	3.4	3.0
	25	3.4	3.0
	50	3.5	3.1
	75	3.7	3.3
	80	3.7	3.3
	90	3.8	3.3
	95	3.9	3.4
	97	3.9	3.4
	98	3.9	3.5
	99	4.0	3.5

## 22. DIMENSION: Hand length

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	193.5	7.6	177.6	7.0
SE Mean	0.4	0.0	0.6	0.0
STD	9.9	0.4	8.6	0.3

The length of the right hand between the stylium landmark on the wrist and the tip of the middle finger (dactylion III).

The subject sits with the palm on a table and the distal phalanges on a flat surface 8 mm higher. The fingers are together and the thumb is held away from the hand at about a 45-degree angle.

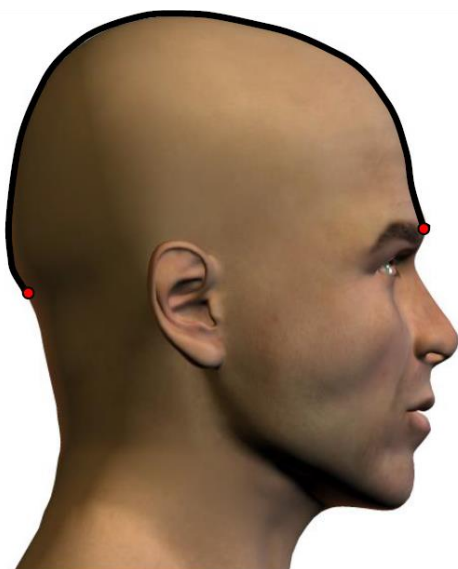


	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	170	157
	2	173	160
	3	175	161
	5	178	163
	10	182	165
	20	185	171
	25	187	172
	50	193	177
	75	200	183
	80	202	184
	90	206	187
	95	210	192
	97	213	195
	98	215	195
	99	220	200
<b>English (in)</b>			
	1	6.7	6.2
	2	6.8	6.3
	3	6.9	6.3
	5	7.0	6.4
	10	7.2	6.5
	20	7.3	6.7
	25	7.4	6.8
	50	7.6	7.0
	75	7.9	7.2
	80	8.0	7.2
	90	8.1	7.4
	95	8.3	7.6
	97	8.4	7.7
	98	8.5	7.7
	99	8.7	7.9

**23. DIMENSION: Head arc length**

	MEN		WOMEN	
<b>Sample Size</b>	756		206	
<b>Weighted Size</b>	756.0		207.9	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	359.1	14.1	338.7	13.3
<b>SE Mean</b>	0.5	0.0	1.0	0.0
<b>STD</b>	14.8	0.6	14.1	0.6

The surface along the contours of the head from the nuchale landmark to the glabella landmark measured with a tape measure.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	322	307
	2	331	312
	3	333	315
	5	335	317
	10	341	322
	20	346	327
	25	350	331
	50	360	337
	75	370	347
	80	372	352
	90	377	357
	95	383	363
	97	387	365
	98	390	365
	99	395	376
<b>English (in)</b>			
	1	12.7	12.1
	2	13.0	12.3
	3	13.1	12.4
	5	13.2	12.5
	10	13.4	12.7
	20	13.6	12.9
	25	13.8	13.0
	50	14.2	13.3
	75	14.6	13.7
	80	14.6	13.9
	90	14.8	14.1
	95	15.1	14.3
	97	15.2	14.4
	98	15.4	14.4
	99	15.6	14.8

## 24. DIMENSION: Head breadth

	MEN		WOMEN	
Sample Size	756		217	
Weighted Size	756.0		217.4	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	154.9	6.1	146.3	5.8
SE Mean	0.2	0.0	0.3	0.0
STD	5.6	0.2	5.1	0.2

The maximum horizontal breadth of the head above the plane of attachment of the ears is measured with a spreading caliper. For female with braids or cornrows, the measurement includes the styled hair.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	143	135
	2	144	136
	3	145	136
	5	146	138
	10	148	141
	20	151	143
	25	152	143
	50	154	146
	75	158	150
	80	160	150
	90	163	153
	95	164	156
	97	166	157
	98	167	157
	99	168	160
<b>English (in)</b>			
	1	5.6	5.3
	2	5.7	5.4
	3	5.7	5.4
	5	5.7	5.4
	10	5.8	5.6
	20	5.9	5.6
	25	6.0	5.6
	50	6.1	5.7
	75	6.2	5.9
	80	6.3	5.9
	90	6.4	6.0
	95	6.5	6.1
	97	6.5	6.2
	98	6.6	6.2
	99	6.6	6.3



## 25. DIMENSION: Head circumference

	MEN		WOMEN	
Sample Size	756		211	
Weighted Size	756.0		212.5	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	579.4	22.8	553.7	21.8
SE Mean	0.6	0.0	1.1	0.0
STD	15.7	0.6	15.5	0.6

The maximum circumference of the head above the attachment of the ears is measured with a tape passing just above the ridges of the eyebrows and around the back of the head. For female with braids or cornrows, the measurement includes the styled hair.

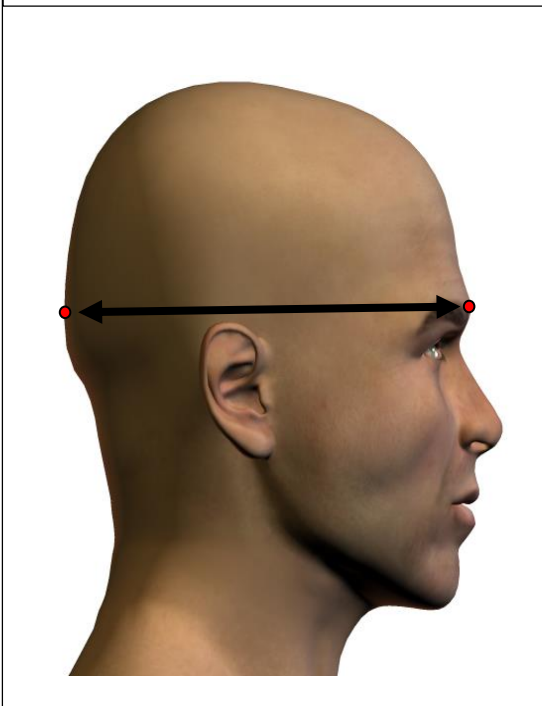


	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	542	520
	2	548	520
	3	551	525
	5	555	530
	10	560	535
	20	566	543
	25	569	545
	50	580	553
	75	590	562
	80	593	565
	90	600	573
	95	605	582
	97	608	587
	98	613	595
	99	618	602
<b>English (in)</b>			
	1	21.3	20.5
	2	21.6	20.5
	3	21.7	20.7
	5	21.9	20.9
	10	22.0	21.1
	20	22.3	21.4
	25	22.4	21.5
	50	22.8	21.8
	75	23.2	22.1
	80	23.3	22.2
	90	23.6	22.6
	95	23.8	22.9
	97	23.9	23.1
	98	24.1	23.4
	99	24.3	23.7

## 26. DIMENSION: Head length

	MEN		WOMEN	
Sample Size	756		212	
Weighted Size	756.0		213.1	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	201.1	7.9	188.4	7.4
SE Mean	0.3	0.0	0.5	0.0
STD	6.9	0.3	6.8	0.3

The distance from the glabella landmark to the opisthocranium landmark is measured with a spreading caliper. For female with braids or cornrows, the measurement includes the styled hair.



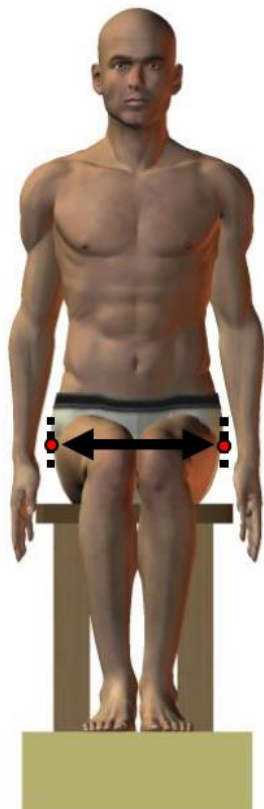
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	183	173
	2	186	174
	3	187	176
	5	190	177
	10	192	180
	20	196	183
	25	197	184
	50	201	188
	75	206	193
	80	207	194
	90	210	197
	95	212	200
	97	214	203
	98	215	204
	99	216	207
<b>English (in)</b>			
	1	7.2	6.8
	2	7.3	6.9
	3	7.4	6.9
	5	7.5	7.0
	10	7.6	7.1
	20	7.7	7.2
	25	7.8	7.2
	50	7.9	7.4
	75	8.1	7.6
	80	8.1	7.6
	90	8.3	7.8
	95	8.3	7.9
	97	8.4	8.0
	98	8.5	8.0
	99	8.5	8.1

**27. DIMENSION: Hip breadth, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	400.5	15.8	419.3	16.5
<b>SE Mean</b>	1.2	0.0	2.8	0.1
<b>STD</b>	32.4	1.3	40.7	1.6

The distance between the lateral points of the hips or thighs (whichever are broader) is measured with a beam caliper.

The subject sits erect on a flat surface with the feet and knees together.



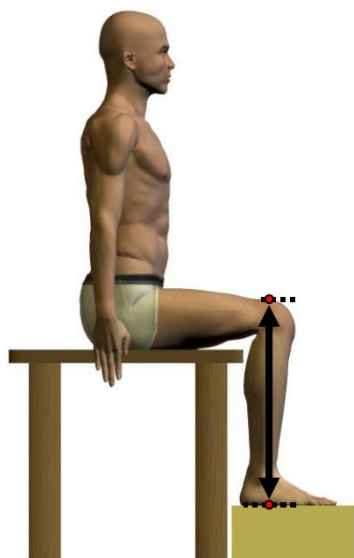
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	342	339
	2	348	348
	3	350	350
	5	355	355
	10	364	366
	20	374	385
	25	379	391
	50	396	417
	75	418	447
	80	423	455
	90	442	473
	95	459	486
	97	477	506
	98	486	509
	99	498	537
<b>English (in)</b>			
	1	13.5	13.3
	2	13.7	13.7
	3	13.8	13.8
	5	14.0	14.0
	10	14.3	14.4
	20	14.7	15.2
	25	14.9	15.4
	50	15.6	16.4
	75	16.5	17.6
	80	16.7	17.9
	90	17.4	18.6
	95	18.1	19.1
	97	18.8	19.9
	98	19.1	20.0
	99	19.6	21.1

**28. DIMENSION: Knee height, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	566.3	22.3	521.5	20.5
<b>SE Mean</b>	1.1	0.0	1.8	0.1
<b>STD</b>	29.5	1.2	26.3	1.0

**The vertical distance between a footrest surface and the suprapatella landmark is measured with an anthropometer.**

The subject sits with the thighs parallel, the knees flexed 90°, and the feet in line with the thighs.



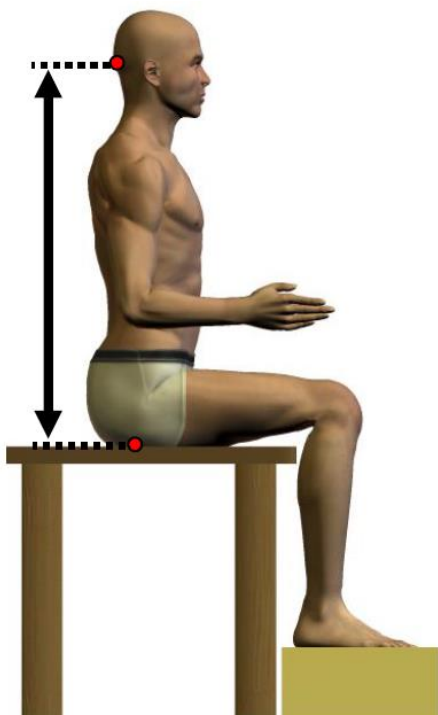
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	498	460
	2	509	469
	3	516	475
	5	522	480
	10	531	487
	20	542	498
	25	546	502
	50	564	523
	75	584	536
	80	591	543
	90	603	554
	95	616	566
	97	629	573
	98	635	575
	99	643	586
<b>English (in)</b>			
	1	19.6	18.1
	2	20.0	18.5
	3	20.3	18.7
	5	20.6	18.9
	10	20.9	19.2
	20	21.3	19.6
	25	21.5	19.8
	50	22.2	20.6
	75	23.0	21.1
	80	23.3	21.4
	90	23.7	21.8
	95	24.3	22.3
	97	24.8	22.6
	98	25.0	22.6
	99	25.3	23.1

**29. DIMENSION: Nuchal height, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	785.2	30.9	731.9	28.8
<b>SE Mean</b>	1.3	0.0	2.2	0.1
<b>STD</b>	34.6	1.4	33.0	1.3

The vertical distance between a sitting surface and the most protrusive point of the nuchal.

The subject sits erect on a flat surface looking straight ahead with the head in the Frankfurt plane. The measurement is taken at the maximum point of quiet respiration.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	704	667
	2	715	674
	3	721	675
	5	729	678
	10	741	689
	20	757	704
	25	762	710
	50	785	728
	75	809	753
	80	813	760
	90	831	777
	95	843	794
	97	851	801
	98	856	809
	99	865	812
<b>English (in)</b>			
	1	27.7	26.3
	2	28.1	26.5
	3	28.4	26.6
	5	28.7	26.7
	10	29.2	27.1
	20	29.8	27.7
	25	30.0	28.0
	50	30.9	28.7
	75	31.9	29.6
	80	32.0	29.9
	90	32.7	30.6
	95	33.2	31.3
	97	33.5	31.5
	98	33.7	31.9
	99	34.1	32.0

**30. DIMENSION: Popliteal height, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	431.9	17.0	392.6	15.5
<b>SE Mean</b>	1.0	0.0	1.6	0.1
<b>STD</b>	26.7	1.0	24.2	1.0

**The vertical distance from a footrest to the back of the right knee (the popliteal fossa at the dorsal juncture of the calf and thigh).**

The subject sits erect on a flat surface with the thighs parallel, the knees flexed 90 degrees. The feet are in line with the thighs, and the arms are relaxed at the sides.



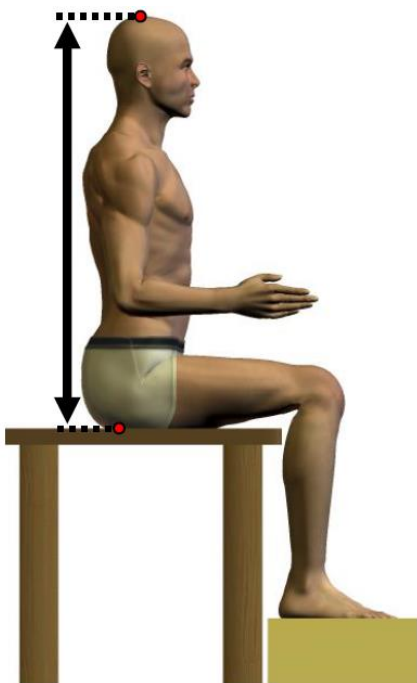
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	370	340
	2	380	346
	3	384	350
	5	390	352
	10	399	359
	20	412	372
	25	415	377
	50	431	392
	75	449	408
	80	453	412
	90	466	423
	95	478	432
	97	483	443
	98	492	448
	99	501	451
<b>English (in)</b>			
	1	14.6	13.4
	2	15.0	13.6
	3	15.1	13.8
	5	15.4	13.9
	10	15.7	14.1
	20	16.2	14.6
	25	16.3	14.8
	50	17.0	15.4
	75	17.7	16.1
	80	17.8	16.2
	90	18.3	16.7
	95	18.8	17.0
	97	19.0	17.4
	98	19.4	17.6
	99	19.7	17.8

### 31. DIMENSION: Sitting height

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	929.5	36.6	874.7	34.4
<b>SE Mean</b>	1.3	0.1	2.1	0.1
<b>STD</b>	35.4	1.4	31.7	1.2

The vertical distance is measured between the sitting surface and the top of the head.

The subject sits erect on a flat surface looking straight ahead with the head in the Frankfort plane. The shoulders and upper arms are relaxed, and the forearms and hands are extended forward horizontally with the palms facing each other.



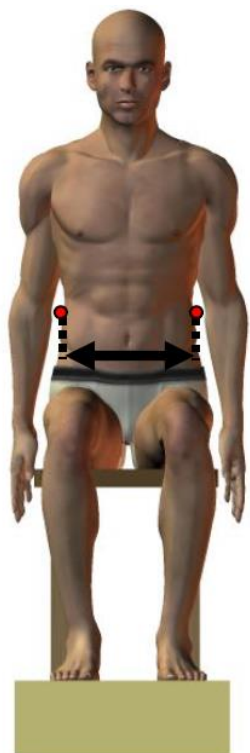
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	850	808
	2	859	813
	3	867	815
	5	870	824
	10	885	833
	20	897	851
	25	905	856
	50	930	873
	75	954	895
	80	962	899
	90	976	914
	95	989	937
	97	994	943
	98	997	951
	99	1005	956
<b>English (in)</b>			
	1	33.5	31.8
	2	33.8	32.0
	3	34.1	32.1
	5	34.3	32.4
	10	34.8	32.8
	20	35.3	33.5
	25	35.6	33.7
	50	36.6	34.4
	75	37.6	35.2
	80	37.9	35.4
	90	38.4	36.0
	95	38.9	36.9
	97	39.1	37.1
	98	39.3	37.4
	99	39.6	37.6

**32. DIMENSION: Waist breadth, sitting**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	359.8	14.2	328.2	12.9
<b>SE Mean</b>	1.5	0.1	2.9	0.1
<b>STD</b>	40.0	1.6	43.0	1.7

The maximum horizontal breadth of the waist between the Tenth rib and the iliocristale landmarks is measured with a beam caliper.

The subject is in the anthropometric sitting position with the head in the Frankfurt plane and the arms relaxed at the sides. The measurement is taken at the maximum point of quiet respiration.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (kg)</b>			
	1	285	244
	2	290	250
	3	296	253
	5	304	262
	10	314	278
	20	326	291
	25	332	299
	50	355	325
	75	383	354
	80	389	362
	90	415	377
	95	434	403
	97	451	432
	98	459	434
	99	465	459
<b>English (lbs)</b>			
	1	11.2	9.6
	2	11.4	9.8
	3	11.7	10.0
	5	12.0	10.3
	10	12.4	10.9
	20	12.8	11.5
	25	13.1	11.8
	50	14.0	12.8
	75	15.1	13.9
	80	15.3	14.3
	90	16.3	14.8
	95	17.1	15.9
	97	17.8	17.0
	98	18.1	17.1
	99	18.3	18.1

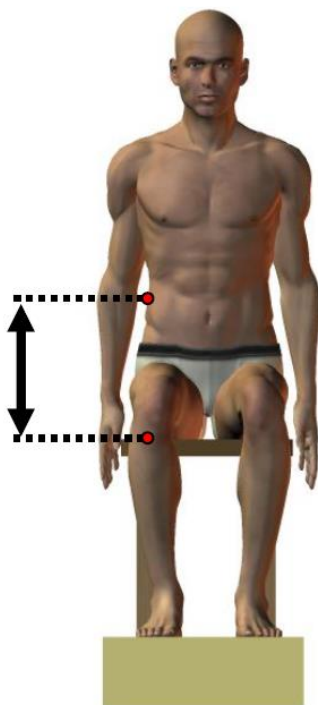


### 33. DIMENSION: Waist breadth height, sitting

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	222.8	8.8	232.9	9.2
SE Mean	0.7	0.0	1.3	0.1
STD	18.6	0.7	19.1	0.8

The vertical distance between a sitting surface and the height of the maximum horizontal breadth of the waist between the Tenth rib and the iliocristale landmark is measured with an anthropometer.

The subject is in the anthropometric sitting position with the head in the Frankfurt plane and the arms relaxed at the sides. The measurement is taken at the maximum point of quiet respiration.



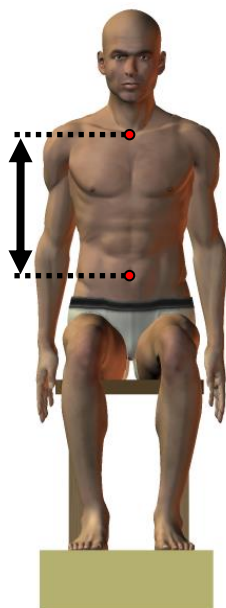
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	179	189
	2	184	191
	3	187	193
	5	190	198
	10	198	208
	20	207	218
	25	210	221
	50	223	232
	75	236	246
	80	238	249
	90	246	257
	95	253	267
	97	256	270
	98	261	271
	99	263	276
<b>English (in)</b>			
	1	7.0	7.4
	2	7.2	7.5
	3	7.4	7.6
	5	7.5	7.8
	10	7.8	8.2
	20	8.1	8.6
	25	8.3	8.7
	50	8.8	9.1
	75	9.3	9.7
	80	9.4	9.8
	90	9.7	10.1
	95	10.0	10.5
	97	10.1	10.6
	98	10.3	10.7
	99	10.4	10.9

**34. DIMENSION: Waist front length, omphalion, sitting**

	MEN		WOMEN	
Sample Size	756		217	
Weighted Size	756.0		217.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	409.4	16.1	380.8	15.0
SE Mean	30.6	1.2	27.2	1.1
STD	1.1	0.0	1.8	0.1

The surface distance between the suprasternale landmark and the anterior omphalion landmark is measured with a tape.

The subject is in the anthropometric sitting position with the head in the Frankfurt plane and the arms relaxed at the sides. The measurement is taken at the maximum point of quiet respiration.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	353	332
	2	356	335
	3	359	336
	5	365	340
	10	373	347
	20	383	357
	25	387	362
	50	406	379
	75	428	397
	80	435	403
	90	453	415
	95	464	427
	97	473	442
	98	479	448
	99	485	458
<b>English (in)</b>			
	1	13.9	13.1
	2	14.0	13.2
	3	14.1	13.2
	5	14.4	13.4
	10	14.7	13.7
	20	15.1	14.1
	25	15.2	14.3
	50	16.0	14.9
	75	16.9	15.6
	80	17.1	15.9
	90	17.8	16.3
	95	18.3	16.8
	97	18.6	17.4
	98	18.9	17.6
	99	19.1	18.0

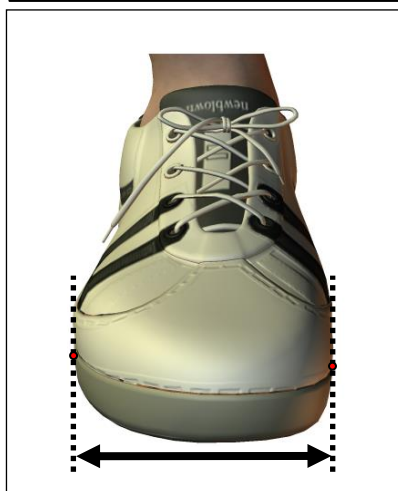
*Measured in Gear (Standing)*

**1. DIMENSION: Boot breadth, standing (Gear)**

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	114.4	4.5	104.9	4.1
SE Mean	0.2	0.0	0.3	0.0
STD	5.5	0.2	5.0	0.2

The maximum horizontal distance across the right boot perpendicular to its long axis measured between the inside and outside of the boot with a beam caliper.

The subject stands erect with feet slightly apart and with the weight distributed equally on both feet.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	103	94
	2	104	95
	3	105	95
	5	106	97
	10	108	98
	20	110	101
	25	111	102
	50	114	105
	75	118	108
	80	119	109
	90	122	111
	95	124	113
	97	126	114
	98	127	116
	99	128	117
<b>English (in)</b>			
	1	4.1	3.7
	2	4.1	3.7
	3	4.1	3.7
	5	4.2	3.8
	10	4.3	3.9
	20	4.3	4.0
	25	4.4	4.0
	50	4.5	4.1
	75	4.6	4.3
	80	4.7	4.3
	90	4.8	4.4
	95	4.9	4.4
	97	5.0	4.5
	98	5.0	4.6
	99	5.0	4.6

## 2. DIMENSION: Boot length, standing (Gear)

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	309.1	12.2	277.7	10.9
SE Mean	0.5	0.0	0.8	0.0
STD	14.0	0.6	11.9	0.5

The distance between the rear-most point of the heel of the right boot and the most anterior part of the boot measured with a beam caliper parallel to the long axis of the foot.

The subject stands erect with feet slightly apart and with the weight distributed equally on both feet.



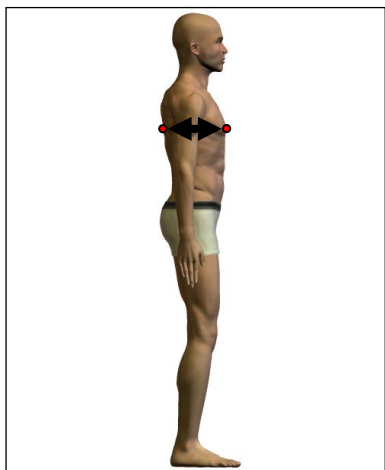
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	279	255
	2	283	257
	3	286	257
	5	288	258
	10	292	263
	20	298	266
	25	299	268
	50	308	278
	75	318	287
	80	321	288
	90	328	293
	95	333	297
	97	338	300
	98	340	303
	99	345	304
<b>English (in)</b>			
	1	11.0	10.0
	2	11.1	10.1
	3	11.3	10.1
	5	11.3	10.2
	10	11.5	10.4
	20	11.7	10.5
	25	11.8	10.6
	50	12.1	10.9
	75	12.5	11.3
	80	12.6	11.3
	90	12.9	11.5
	95	13.1	11.7
	97	13.3	11.8
	98	13.4	11.9
	99	13.6	12.0

### 3. DIMENSION: Chest depth, standing (Gear)

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	325.9	12.8	309.3	12.2
SE Mean	1.2	0.0	2.0	0.1
STD	31.8	1.3	29.8	1.2

The horizontal distance between the level of the nipple, or bust point, and the back at the same level in officer gear is measured with a beam caliper.

The subject stands erect, looking straight ahead. The shoulders and upper extremities are relaxed. The measurement is taken at the maximum point of quiet respiration.



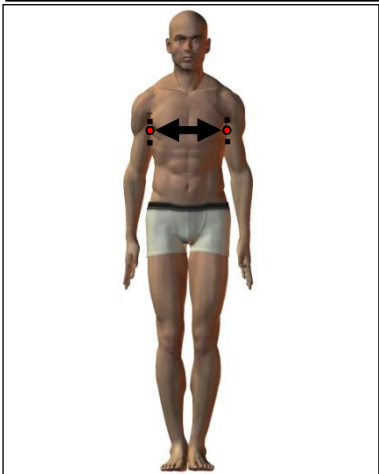
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	260	245
	2	267	253
	3	273	255
	5	278	261
	10	287	275
	20	298	285
	25	302	287
	50	325	307
	75	346	327
	80	350	334
	90	370	348
	95	383	369
	97	388	372
	98	397	377
	99	407	383
<b>English (in)</b>			
	1	10.2	9.6
	2	10.5	10.0
	3	10.7	10.0
	5	10.9	10.3
	10	11.3	10.8
	20	11.7	11.2
	25	11.9	11.3
	50	12.8	12.1
	75	13.6	12.9
	80	13.8	13.1
	90	14.6	13.7
	95	15.1	14.5
	97	15.3	14.6
	98	15.6	14.8
	99	16.0	15.1

#### 4. DIMENSION: Chest width, standing (Gear)

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	384.9	15.2	346.6	13.6
SE Mean	1.2	0.0	1.7	0.1
STD	32.2	1.3	25.5	1.0

The maximum horizontal breadth of the chest at the level of the nipple, or bust point, while capturing the body armor, is taken with a beam caliper.

The subject stands erect, looking straight ahead with the heels together and the weight distributed evenly on both feet. The participant places both hands on the hips and takes a deep breath and holds it. The measurement is taken at maximum inspiration of the chest.



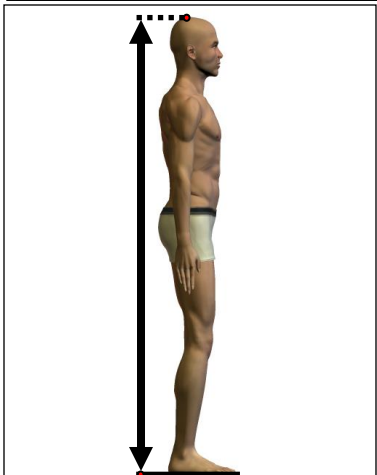
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	320	293
	2	326	296
	3	330	297
	5	335	303
	10	345	319
	20	358	326
	25	364	329
	50	383	346
	75	403	363
	80	410	367
	90	430	379
	95	444	390
	97	452	398
	98	457	408
	99	472	412
<b>English (in)</b>			
	1	12.6	11.5
	2	12.8	11.7
	3	13.0	11.7
	5	13.2	11.9
	10	13.6	12.6
	20	14.1	12.8
	25	14.3	13.0
	50	15.1	13.6
	75	15.9	14.3
	80	16.1	14.4
	90	16.9	14.9
	95	17.5	15.4
	97	17.8	15.7
	98	18.0	16.1
	99	18.6	16.2

### 5. DIMENSION: Stature, footwear, standing (Gear)

	MEN		WOMEN	
Sample Size	756		217	
Weighted Size	756.0		217.2	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	1804.3	71.0	1680.7	66.2
SE Mean	2.6	0.1	4.3	0.2
STD	72.0	2.8	64.0	2.5

The vertical distance from a standing surface to the top of the head is measured with an anthropometer.

The subject wears boots and stands erect with the head in the Frankfurt plane. The heels are together with the weight distributed equally on both feet. The shoulders and upper extremities are relaxed. The measurement is taken at the maximum point of quiet respiration.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	1631	1545
	2	1660	1563
	3	1677	1568
	5	1690	1583
	10	1716	1598
	20	1747	1625
	25	1757	1635
	50	1801	1677
	75	1853	1721
	80	1862	1735
	90	1896	1769
	95	1928	1795
	97	1956	1810
	98	1964	1821
	99	1982	1843
<b>English (in)</b>			
	1	64.2	60.8
	2	65.4	61.5
	3	66.0	61.7
	5	66.5	62.3
	10	67.6	62.9
	20	68.8	64.0
	25	69.2	64.4
	50	70.9	66.0
	75	73.0	67.8
	80	73.3	68.3
	90	74.6	69.6
	95	75.9	70.7
	97	77.0	71.3
	98	77.3	71.7
	99	78.0	72.6

**6. DIMENSION: Weight in gear**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (kg)</b>	<b>English (lbs)</b>	<b>Metric (kg)</b>	<b>English (lbs)</b>
<b>Mean</b>	106.3	234.3	84.2	185.6
<b>SE Mean</b>	0.7	1.4	0.9	2.1
<b>STD</b>	18.0	39.6	13.9	30.6

**The weight of the participant is taken to the nearest tenth of a kilogram.**

The subject stands on the platform of a scale with the weight distributed evenly on both feet. The participant wears officer gear including tools in pockets.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (kg)</b>			
	1	74.4	56.8
	2	76.5	57.2
	3	78.3	60.1
	5	80.8	62.7
	10	86.8	67.3
	20	92.1	72.5
	25	94.4	74.7
	50	103.2	82.5
	75	115.1	93.7
	80	119	95.7
	90	130.5	101.1
	95	140.6	107.5
	97	148.8	115.6
	98	151.7	117.9
	99	164.3	125.2
<b>English (lbs)</b>			
	1	164.0	125.2
	2	168.7	126.1
	3	172.6	132.5
	5	178.1	138.2
	10	191.4	148.4
	20	203.0	159.8
	25	208.1	164.7
	50	227.5	181.9
	75	253.8	206.6
	80	262.4	211.0
	90	287.7	222.9
	95	310.0	237.0
	97	328.0	254.9
	98	334.4	259.9
	99	362.2	276.0

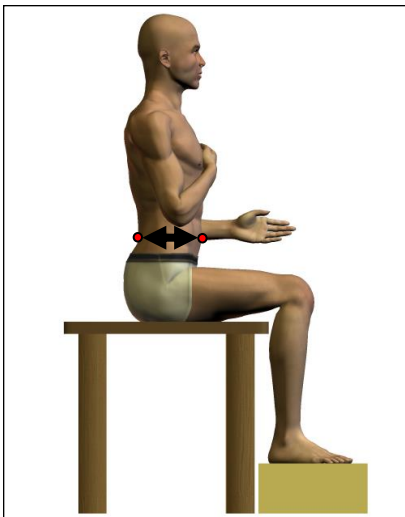


*Measured in Gear (Seated)***7. DIMENSION: Abdominal extension depth, sitting (Gear)**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	351.4	13.8	318.3	12.5
<b>SE Mean</b>	1.7	0.1	2.7	0.1
<b>STD</b>	45.9	1.8	39.8	1.6

The horizontal distance between the abdominal point, anterior and the back at the same level is measured with a beam caliper over officer gear.

The subject sits erect, looking straight ahead. The measurement is taken at the maximum point of quiet respiration.



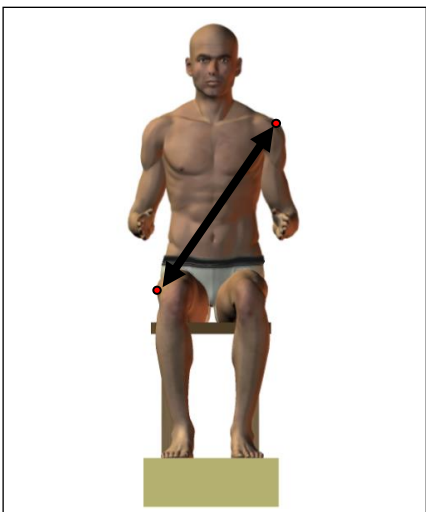
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	264	239
	2	272	245
	3	279	248
	5	284	254
	10	297	270
	20	312	286
	25	319	292
	50	345	315
	75	380	341
	80	388	348
	90	415	367
	95	437	392
	97	454	397
	98	464	398
	99	476	434
<b>English (in)</b>			
	1	10.4	9.4
	2	10.7	9.6
	3	11.0	9.8
	5	11.2	10.0
	10	11.7	10.6
	20	12.3	11.3
	25	12.6	11.5
	50	13.6	12.4
	75	15.0	13.4
	80	15.3	13.7
	90	16.3	14.4
	95	17.2	15.4
	97	17.9	15.6
	98	18.3	15.7
	99	18.7	17.1

**8. DIMENSION: Acromion-trochanter surface length, sitting (Gear)**

	MEN		WOMEN	
<b>Sample Size</b>	755		218	
<b>Weighted Size</b>	755.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	836.9	32.9	790.3	31.1
<b>SE Mean</b>	1.9	0.1	3.2	0.1
<b>STD</b>	53.4	2.1	47.4	1.9

**The contour distance from the left acromion landmark to the right trochanter landmark measured with a tape over officer gear.**

The subject is in the anthropometric sitting position. The measurement is taken at the maximum point of quiet respiration.



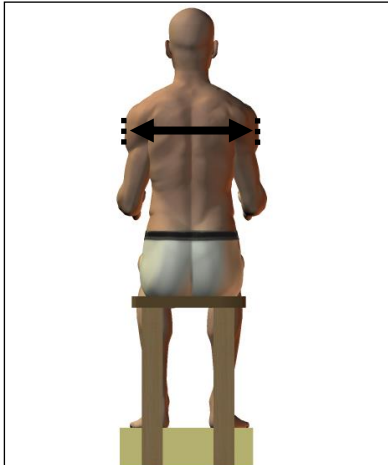
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	730	705
	2	742	715
	3	745	719
	5	755	720
	10	775	735
	20	795	748
	25	800	750
	50	835	790
	75	870	825
	80	877	830
	90	909	855
	95	930	875
	97	952	885
	98	970	905
	99	985	915
<b>English (in)</b>			
	1	28.7	27.8
	2	29.2	28.1
	3	29.3	28.3
	5	29.7	28.3
	10	30.5	28.9
	20	31.3	29.4
	25	31.5	29.5
	50	32.9	31.1
	75	34.3	32.5
	80	34.5	32.7
	90	35.8	33.7
	95	36.6	34.4
	97	37.5	34.8
	98	38.2	35.6
	99	38.8	36.0

**9. DIMENSION: Bideltoid breadth/width, sitting (Gear)**

	MEN		WOMEN	
<b>Sample Size</b>	756		218	
<b>Weighted Size</b>	756.0		218.0	
	<b>Metric (mm)</b>	<b>English (in)</b>	<b>Metric (mm)</b>	<b>English (in)</b>
<b>Mean</b>	543.0	21.4	483.8	19.0
<b>SE Mean</b>	1.3	0.1	2.3	0.1
<b>STD</b>	37.0	1.5	34.2	1.3

**The maximum horizontal distance between the lateral margins of the upper arms on the deltoid muscles is measured with a beam caliper over officer gear.**

The subject sits erect, looking straight ahead. The shoulders and upper arms are relaxed and the forearms and hands are extended forward horizontally with the palms facing each other. The measurement is taken at the maximum point of quiet respiration.



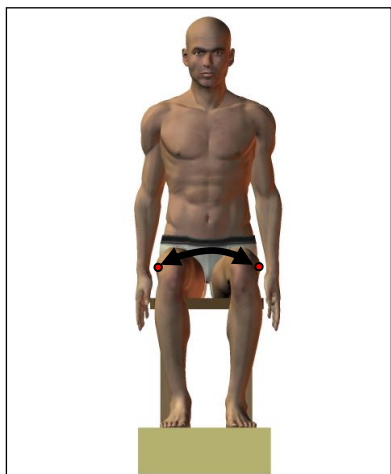
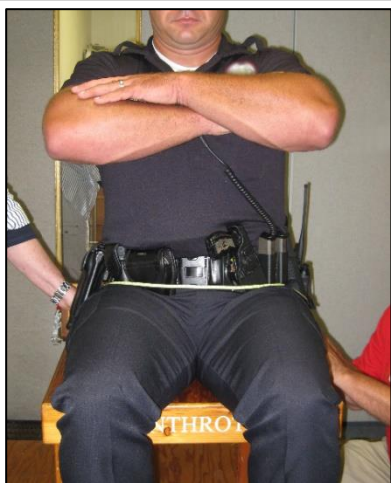
	<b>Percentiles</b>	<b>MEN Quantile</b>	<b>WOMEN Quantile</b>
<b>Metric (mm)</b>			
	1	462	402
	2	476	416
	3	481	419
	5	489	429
	10	500	444
	20	512	457
	25	517	463
	50	539	483
	75	565	504
	80	573	512
	90	592	522
	95	612	536
	97	622	554
	98	628	557
	99	633	586
<b>English (in)</b>			
	1	18.2	15.8
	2	18.7	16.4
	3	18.9	16.5
	5	19.3	16.9
	10	19.7	17.5
	20	20.2	18.0
	25	20.4	18.2
	50	21.2	19.0
	75	22.2	19.8
	80	22.6	20.2
	90	23.3	20.6
	95	24.1	21.1
	97	24.5	21.8
	98	24.7	21.9
	99	24.9	23.1

**10. DIMENSION: Bi-trochanter surface length, sitting (Gear)**

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	718.8	28.3	672.2	26.5
SE Mean	2.3	0.1	4.2	0.2
STD	62.9	2.5	62.1	2.4

**The maximum distance from the right trochanter landmark to the left trochanter landmark measured above the legs with a tape over officer gear.**

The subject is in the anthropometric sitting position. The measurement is taken at the maximum point of quiet respiration. The path of the tape should mimic the path of an automobile seat belt.



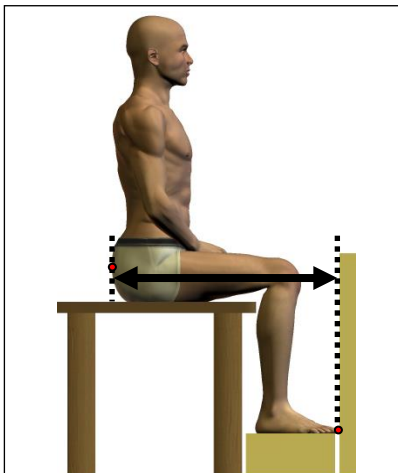
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	595	530
	2	605	545
	3	610	550
	5	625	570
	10	645	600
	20	670	625
	25	676	635
	50	710	665
	75	750	710
	80	765	720
	90	800	745
	95	840	775
	97	860	800
	98	875	815
	99	900	875
<b>English (in)</b>			
	1	23.4	20.9
	2	23.8	21.5
	3	24.0	21.7
	5	24.6	22.4
	10	25.4	23.6
	20	26.4	24.6
	25	26.6	25.0
	50	28.0	26.2
	75	29.5	28.0
	80	30.1	28.3
	90	31.5	29.3
	95	33.1	30.5
	97	33.9	31.5
	98	34.4	32.1
	99	35.4	34.4

### 11. DIMENSION: Buttock-shoe tip length, sitting (Gear)

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	795.4	31.3	752.7	29.6
SE Mean	1.7	0.1	3.5	0.1
STD	47.7	1.9	51.4	2.0

The horizontal distance between the most posterior point of the right buttock and the anterior point of the right boot is measured with an anthropometer.

The subject sits erect. The thighs are parallel and the knees flexed 90° with the feet in line with the thighs. A vertical plane is placed at the anterior point of the right boot to help measure the horizontal distance from the buttock plate.



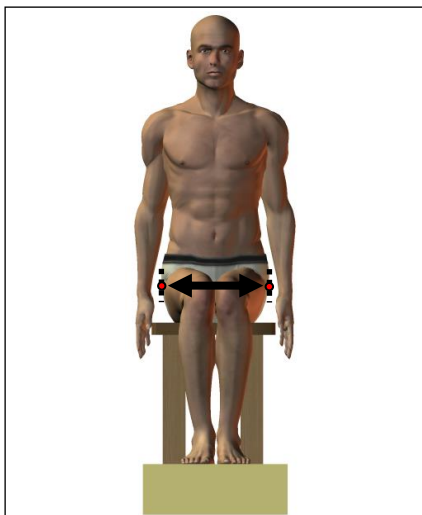
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	703	647
	2	707	650
	3	717	669
	5	722	681
	10	737	692
	20	754	715
	25	761	718
	50	792	749
	75	827	780
	80	835	786
	90	860	810
	95	879	855
	97	892	877
	98	906	896
	99	917	905
<b>English (in)</b>			
	1	27.7	25.5
	2	27.8	25.6
	3	28.2	26.3
	5	28.4	26.8
	10	29.0	27.2
	20	29.7	28.1
	25	30.0	28.3
	50	31.2	29.5
	75	32.6	30.7
	80	32.9	30.9
	90	33.9	31.9
	95	34.6	33.7
	97	35.1	34.5
	98	35.7	35.3
	99	36.1	35.6

**12. DIMENSION: Hip breadth, sitting (Gear)**

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	505.7	19.9	489.4	19.3
SE Mean	1.3	0.1	2.5	0.1
STD	37.0	1.5	36.7	1.4

The distance between the lateral points of the hips or thighs (whichever is broader) is measured with a beam caliper over officer gear.

The subject sits erect with the feet and knees together.



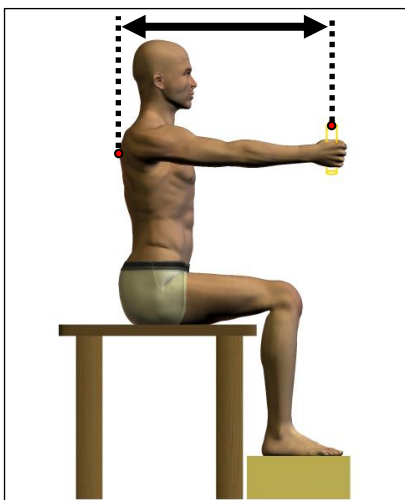
	Percentiles	MEN Quantile	WOMEN Quantile
Metric (mm)			
	1	412	400
	2	425	418
	3	432	419
	5	446	433
	10	462	447
	20	478	460
	25	483	466
	50	506	487
	75	526	513
	80	533	519
	90	554	536
	95	570	552
	97	580	567
	98	587	576
	99	595	576
English (in)			
	1	16.2	15.7
	2	16.7	16.5
	3	17.0	16.5
	5	17.6	17.0
	10	18.2	17.6
	20	18.8	18.1
	25	19.0	18.3
	50	19.9	19.2
	75	20.7	20.2
	80	21.0	20.4
	90	21.8	21.1
	95	22.4	21.7
	97	22.8	22.3
	98	23.1	22.7
	99	23.4	22.7

### 13. DIMENSION: Shoulder-grip length, sitting (Gear)

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	802.8	31.6	740.8	29.2
SE Mean	1.5	0.1	2.6	0.1
STD	40.5	1.6	38.3	1.5

The horizontal distance between the back of the shoulders and the center of a dowel in the grip of an extended arm is measured with a beam caliper over officer gear.

The subject is in the anthropometric sitting position with the head in the Frankfurt plane with right arm extended forward horizontally holding a vertical dowel rod.



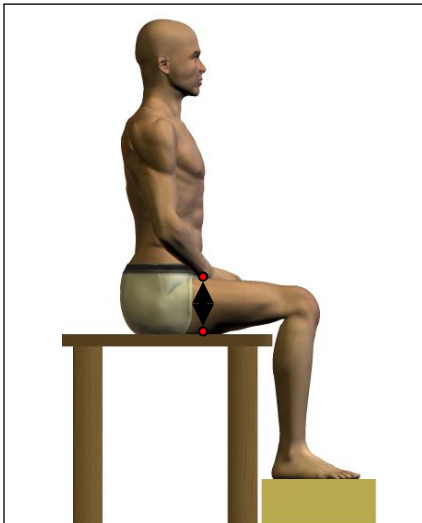
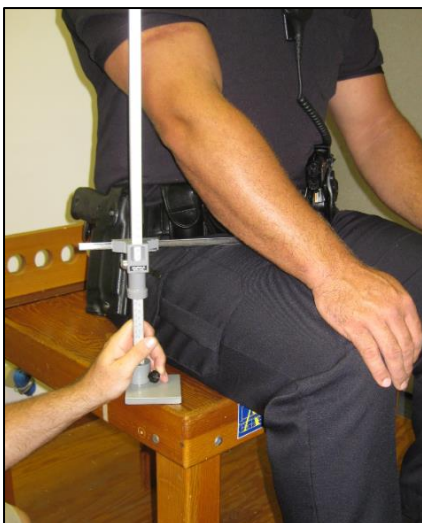
	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	712	648
	2	728	658
	3	737	667
	5	742	680
	10	753	690
	20	769	709
	25	774	714
	50	801	742
	75	829	773
	80	834	776
	90	855	788
	95	871	799
	97	885	811
	98	894	812
	99	907	829
<b>English (in)</b>			
	1	28.0	25.5
	2	28.7	25.9
	3	29.0	26.3
	5	29.2	26.8
	10	29.6	27.2
	20	30.3	27.9
	25	30.5	28.1
	50	31.5	29.2
	75	32.6	30.4
	80	32.8	30.6
	90	33.7	31.0
	95	34.3	31.5
	97	34.8	31.9
	98	35.2	32.0
	99	35.7	32.6

**14. DIMENSION: Thigh clearance, sitting (Gear)**

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	197.2	7.8	180.8	7.1
SE Mean	0.6	0.0	1.2	0.0
STD	17.2	0.7	17.2	0.7

The vertical distance between a sitting surface and the highest point on top of the right thigh in officer gear is measured with an anthropometer.

The subject sits with the thighs parallel, knees flexed 90°, and the feet in line with the thighs.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (mm)</b>			
	1	161	145
	2	165	148
	3	167	150
	5	170	151
	10	176	159
	20	184	167
	25	186	170
	50	196	179
	75	207	194
	80	211	197
	90	220	203
	95	226	210
	97	233	217
	98	236	217
	99	245	219
<b>English (in)</b>			
	1	6.3	5.7
	2	6.5	5.8
	3	6.6	5.9
	5	6.7	5.9
	10	6.9	6.3
	20	7.2	6.6
	25	7.3	6.7
	50	7.7	7.0
	75	8.1	7.6
	80	8.3	7.8
	90	8.7	8.0
	95	8.9	8.3
	97	9.2	8.5
	98	9.3	8.5
	99	9.6	8.6

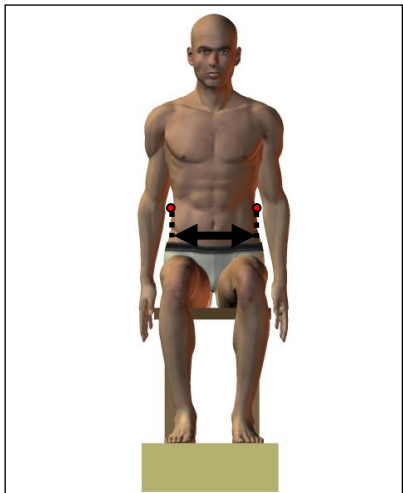


**15. DIMENSION: Waist breadth, sitting (Gear)**

	MEN		WOMEN	
Sample Size	756		218	
Weighted Size	756.0		218.0	
	Metric (mm)	English (in)	Metric (mm)	English (in)
Mean	450.5	17.7	448.9	17.7
SE Mean	1.8	0.1	3.4	0.1
STD	49.6	2.0	50.4	2.0

**The maximum horizontal breadth of the waist between the Tenth rib and the iliochrastale landmarks is measured with a beam caliper over officer gear.**

The subject is in the anthropometric sitting position with the head in the Frankfurt plane and the arms relaxed at the sides. The measurement is taken at the maximum point of quiet respiration.



	Percentiles	MEN Quantile	WOMEN Quantile
<b>Metric (kg)</b>			
	1	333	309
	2	350	317
	3	359	326
	5	372	342
	10	385	370
	20	404	415
	25	413	428
	50	454	460
	75	486	483
	80	495	490
	90	512	505
	95	524	515
	97	532	523
	98	543	528
	99	557	531
<b>English (lbs)</b>			
	1	13.1	12.2
	2	13.8	12.5
	3	14.1	12.8
	5	14.6	13.5
	10	15.2	14.6
	20	15.9	16.3
	25	16.3	16.9
	50	17.9	18.1
	75	19.1	19.0
	80	19.5	19.3
	90	20.2	19.9
	95	20.6	20.3
	97	20.9	20.6
	98	21.4	20.8
	99	21.9	20.9

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