

Creating a Standard Sizing Table

There is a difference between the sizing chart you might see on a brand's website and one used to create a pattern. The brand's ready to wear size chart will have just a few basic measurements like Bust, Waist and Hips and some may also include extra indicators like height, in terms like Short or Tall ... they simply aim to help you select their arbitrary labelled size ... they're indicators of sizing, rounded off to the nearest number or, more frequently, presented as a range.

While you might not realise, you've probably seen a comprehensive sizing chart for pattern making being created before. If you've ever had a custom made dress, like a wedding dress made or perhaps a classic bespoke suit, the dress maker/tailor would have taken innumerable measurements with a tape. You'd certainly have seen them acting out this process in movies. To make a pattern we need a lot more measurements than the sizing chart you see on ready to wear brand's websites!

There are a number of typical measurements for each part of the body (bodice, arms and legs) and you may not require all of them. For example if you are just producing swimwear, you may not ever use a leggings block so there'd be no need for the leg measurements ... the same might apply to the arms. Indeed I have many swimwear clients that do not provide leg and arm data ... but they soon come into issues when one day they just want to do a once off rash guard or a pair of short shorts in swim fabric and now need to create new blocks which conform to their one piece bodice block. Collection of as much measurement data as possible in the earliest stage of your brands developments is *the* most important step in the production process ... all your blocks will be based on those numbers, all your patterns based on those blocks, and all your garments made with those patterns. Measurements are the foundation of your brands entire existence ...no consistency in sizing equates to confused customers and low sales ... that's the absolute death of a brand.

Have I stressed enough, the importance of good data?

OK, so do we need to actually go out and measure hundreds or even thousands of people? Well yes and no. Traditionally pattern makers came from fashion school or an existing brand and they would have been given a set of measurements to work with. Over time each pattern maker would have modified the data to create a better fit for a particular market or company, ethnic group or even entire country. Everywhere is different and so too are the individual people. Fine tuning measurements equates to a better fit success rate ... it's a constant maturing process.

But there's more to this. Every brand could well measure the same group of people and come up with different numbers and very different blocks. A successful brand does not try to be everything for everybody ... unless we're talking T shirts with lots of ease. A successful brand typically aims at a target shape. Dior tends to target women with a smaller waist, YSL targeted slightly wider hips than average, Gucci seems to have a thing for highly angled shoulders and Chanel created much rounder shapes. You see, you might collect 100 measurement sets and just take an average and that'd be fine most of the time ... but some of those clients will have a bigger Hip measurement than others for the same Bust measurement ... and if the range spans more than a couple of your intended size increments then you're going to run into problems. How many times have you looked at a brand's size charts and thought "well I'm a medium bust, a small waist and an extra large hips, so what size do I choose?"

High end brands target a shape, not just a size. Just like you might know you're a medium in a certain brand, you'll also start to learn which brands fit you better than others in the same size ... well you probably just criticise the brand for a bad fit rather than realise you're not their target shape.

Stretch wear is often immune to this issue because we can sell things like swim as separates, but I still mention this for one really important reason ... many markets using stretch have specific body shapes. Weight lifters have wider shoulders and bigger arms, dancers frequently have straighter backs, gymnasts have wider backs and bigger upper thighs. Some niche markets will be distinctly different in shape to your average ready to wear shopper at the mall ... and that'll typically be across one or two measurements.

I've collected more than 20,000 sets of measurements over the last 30+ years, some are mine and some from other companies, but the result is a very consistent average that results in a predictable fit for general ready to wear fashion. If you were to use my size charts, however, you're likely to find significant discrepancies with one or more particular measurements when you compare them to your particular market ... and that's because of what we mentioned above. Furthermore, mine are global ... if you make for a specific ethnic group or country you'll find more discrepancies ... and that's OK too. If you don't want to start collecting 1000's of measurement sets right at start up, you're going to find it easier to measure a few dozen and look at which particular measurements always seem wrong and just adjust those only.

To make that a little clearer, my measurements are for all ethnic groups across the planet as a whole. An American Caucasian body of a particular Nape to Waist will be comparable

in sizing to a South East Asian of exactly the same Nape to Waist ... don't get confused by thinking that one group is generally bigger or smaller than the other because they are as such on the whole ... but a specific size will likely be very similar across all the measurements with maybe one or two measurements shifted a size up or down across the board ... this is what you're going to try and do for your specific market ... this is the understanding of measurements that you really need to see intuitively in the future.

My tables work as a good starting point because I've sought out sizing trends in the data. Without argument, there are two particular measurements that show the greatest linear correlation with all the other measurements ... these are Under Bust and Nape to Waist ... if we know these two, we can confidently predict most of the other measurements within reason and, after that, fine tune them for niche markets. It's the only safe way to fast track data gathering that can then be matured over time.

At this point I'm going to guess that a great deal of you will say, oh that's too complicated, why can't I just use Bust. Well Bust is the absolute most unpredictable measurement ... why do you think we have so many cup sizes for a single band (Under Bust). The world's most common bra size is a 34C and it has the same total bust measurement as a 38A ... yet these two individuals are like to have a Waist and Hips around 4 inches different ... this is why pattern makers shouldn't use Bust as their key indicator. You need to record Under Bust and Nape to Waist every time you take someone's measurements so you can tie in their measurements to every other measurement you've previously recorded. I have a simple database that I add to every time I take measurements. I can run all sorts of queries on this to test ideas ... you may not need that yet, but if you become a successful brand you will one day find it essential ... so start accumulating your data now!

I've included four tables below:

- Metric 4cm increments (complete with my data)
- Metric 4cm increments (for you to complete)
- Imperial 2" increments (or 5cm increments, complete with data)
- Imperial 2" increments (or 5cm increments, for you to complete)

These sizes are essentially a linear trend up until the last few sizes, where shape and proportion starts to change in the plus size range. When we grade into those last two columns we'll convert them to a linear grading format.

Print out the two pages that correspond to your system, measure your sampled group, check how they correspond to the completed table and then fill out the second table ... sounds easy but it'll take you a little time ... measure carefully!

You can of course message/email me to get help with these steps ... I'm even happy to take your data and do this step for you at no extra cost, I just rather you have a try first as it'll help you understand exactly how your market's shape might be different to general ready to wear fashion ... and that'll help you design better garments!

Lastly, when it comes to creating those tables you see on a ready to wear brand's website, you'll now have an exact number you can quote to your client along with whatever arbitrary sizing label you use (eg; small, medium, large etc)

Note: My tables do not exceed an Under Bust of 98cm (or for the imperial, only 38 inches) as I have as yet limited plus size data that has been thoroughly tested. I'm happy to create blocks/patterns if you have your own data in the higher ranges but I, personally, do not guarantee their success ... you'll need to sample those garments and thoroughly test them yourself. As with the regular sizing, I can only make patterns to the numbers you approve ... if those numbers aren't accurate then fit will not be optimal and they'll need to be redrafted at additional cost. Feel free to chat with me about this if you need clarification.

Metric 4cm Increments

The data below is a normalised statistical analysis of over 20,000 adult female measurement sets, collected over the last 30 years. It represents a complete mix of all ethnic/racial groups and from all countries. It is indicative of a global average ... it is not indicative of a specific group or niche market. Measurements are in centimetres.

A 4cm increment (this table) is optimal for stretch wear between 8 and 20% negative ease ... while 5cm is the most common, you may lose a little bit of overlap between sizes ... meaning some people right in the middle of the gap may find the size either side doesn't fit well. Never create a ready to wear range for stretch that spans more than 5cm between sizes!

Underbust	66	70	74	78	82	86	90	94	98
Nape To Waist	39	39.5	40	40.5	41	41.5	42	42.5	43
Bust	80	84	88	92	96	100	104	108	112
Waist	60	64	68	72	76	80	84	88	92
Hips	85	89	93	97	101	105	109	113	117
BP to BP	19	20	21	22	23	24	25	26.5	28
Mid Shoulder to BP	22	23	24	25	26	27	27.5	28	28.5
Neck	35	36	37	38	39	40	41	41.5	42
Shoulder	11.75	12	12.25	12.5	12.75	13	13.25	13.25	13.5
Chest	30	31	32	33	34	35	36	37.5	39
Back	32.5	33.5	34.5	35.5	36.5	37.5	38.5	39.5	41
Waist To Bust	15.6	15.8	16	16.2	16.4	16.6	16.8	16.8	16.8
Waist to Hips	24	25	26	27	28	29	30	30.5	31
Waist to Waist	65	68.5	72	75.5	79	82.5	86	86	86
Waist to Knee	58	58.5	59	59.5	60	60.5	61	61	61
Waist to Floor	102	103	104	105	106	107	107	107	107
Arm Length	57	57.5	58	58.5	59	59.5	60	60	60
Upper Arm	26	27.25	28.5	29.75	31	32.25	33.5	34	35.5
Wrist	15	15.5	16	16.5	17	17.5	18	19	20
Thigh	45.25	47.5	49.75	52	54.25	56.5	59	62	65
Mid Calf	32.5	34	35.5	37	38.5	40	41.5	43	45
Ankle	19	20	21	22	23	24	25	26.5	28

Metric 4cm Increments

Print out the table below and complete the empty boxes based on the measurements you get from your sampled clients. The measurements I've left here are the important indicators of sizing trends ... only change them if it's clearly essential.

Record measurements as accurately as possible ... to the nearest millimetre if you can.

Underbust	66	70	74	78	82	86	90	94	98
Nape To Waist	39	39.5	40	40.5	41	41.5	42	42.5	43
Bust	80	84	88	92	96	100	104	108	112
Waist	60	64	68	72	76	80	84	88	92
Hips	85	89	93	97	101	105	109	113	117
BP to BP									
Mid Shoulder to BP									
Neck									
Shoulder									
Chest									
Back									
Waist To Bust									
Waist to Hips									
Waist to Waist									
Waist to Knee									
Waist to Floor									
Arm Length									
Upper Arm									
Wrist									
Thigh									
Mid Calf									
Ankle									

Imperial 2 Inch (5cm) Increments

The data below is a normalised statistical analysis of over 20,000 adult female measurement sets, collected over the last 30 years. It represents a complete mix of all ethnic/racial groups and from all countries. It is indicative of a global average ... it is not indicative of a specific group or niche market. Measurements are in inches.

A 1.6" increment is optimal for stretch wear between 8 and 20% negative ease ... while 2", or 5cm, is the most common, you may lose a little bit of overlap between sizes ... meaning some people right in the middle of the gap may find the size either side doesn't fit well. Never create a ready to wear range for stretch that spans more than 2" between sizes!

Note: people who measure in inches tend to do so to the nearest eighth or quarter inch, as opposed to those who measure to the nearest millimetre when using metric ... this produces a slightly different table to the metric version.

Underbust	26	28	30	32	34	36	38
Nape To Waist	15 ½	15 ¾	16	16 ¼	16 ½	16 ¾	17
Bust	32	34	36	38	40	42	44
Waist	24	26	28	30	32	34	36
Hips	34	36	38	40	42	44	46
BP to BP	7 ½	8	8½	9	9 ½	10	10 ½
Mid Shoulder to BP	8 ½	8 ¾	9	9 ¼	9 ½	9 ¾	10
Neck	13 ¾	14 ¼	14 ¾	15 ¼	15 ¾	16 ¼	16 ¾
Shoulder	4 ⅝	4 ¾	4 ⅞	5	5 ⅛	5 ¼	5 ½
Chest	11 ¾	12 ¼	12 ¾	13 ¼	13 ¾	14 ¼	14 ¾
Back	12 ¾	13 ¼	13 ¾	14 ¼	14 ¾	15.5	16 ¼
Waist To Bust	6 ⅛	6 ¼	6 ⅜	6 ½	6 ⅝	6 ⅞	6 ⅞
Waist to Hips	10	10 ⅜	10 ¾	11 ⅛	11 ½	11 ¾	12
Waist to Waist	25 ½	27 ⅜	29 ¼	31 ⅛	33	34	35
Waist to Knee	22 ¾	23	23 ¼	23 ½	23 ¾	24	24
Waist to Floor	40 ⅛	40 ½	40 ⅞	41 ¼	41 ½	42	42
Arm Length	22 ½	22 ¾	23	23 ¼	23 ½	23 ⅝	23 ¾
Upper Arm	10 ¼	10 ⅞	11 ½	12 ⅛	12 ¾	13 ⅜	14
Wrist	6	6 ¼	6 ½	6 ¾	7	7 ¼	7 ½
Thigh	16 ⅝	18	19 ⅜	20 ¾	22 ⅛	23.5	24 ⅞
Mid Calf	12 ¾	13 ½	14 ¼	15	15 ¾	16 ½	17 ½
Ankle	7 ½	8	8 ½	9	9 ½	10	10 ¾

Imperial 2 Inch (5cm) Increments

Print out the table below and complete the empty boxes based on the measurements you get from your sampled clients. The measurements I've left here are the important indicators of sizing trends ... only change them if it's clearly essential.

Record measurements as accurately as possible ... to the nearest eighth of an inch if you can.

Underbust	26	28	30	32	34	36	38
Nape To Waist	15 ½	15 ¾	16	16 ¼	16 ½	16 ¾	17
Bust	32	34	36	38	40	42	44
Waist	24	26	28	30	32	34	36
Hips	34	36	38	40	42	44	46
BP to BP							
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