CDN®
Kitchen Measurement Tools

WHY SCALES?

A quick reference guide.

WHY SCALES

- **Precision** – as much as a 20% difference in the weight of an ingredient measured by volume
- **Consistency** – weighing does not have discrepancies caused by the weather, altitude, size ingredients, or the tools being used as can happen when you measure by volume
- **Repeatability** – precision and consistency makes it more likely to be able to repeat a great recipe
- **Faster and Easier** – one tool for measuring many ingredients
- **Less Clean-up** – tare to zero out the scale, and add the next ingredient for one-bowl recipe preparation
- **Recipe Conversion** – adjusting the yield of a recipe (to make either more or less) are mathematically easier using metric grams than volume measurements
- **Unit Conversion** – selecting lb, ounce, gram or other unit converts the weight automatically between units
- **Cost effective** – buy in bulk and then measure out the bulk quantity into recipe-sized portions

TYPES

- **Mechanical** – uses a platform mounted on a heavy spring to measure weight, manually activating a pointer.
- **Balance** – operates by performing comparisons between known masses and the object to be weighed.

- **Digital** – works based on an electrical component called a strain gauge load cell. The electrical resistance of the strain gauge changes based upon the compression and a simple computer in the digital scale allows it to calculate the weight of a load by the change in resistance. It provides fast, accurate readings and resists moisture, operating either on batteries or electricity.

USES

- Portion control – most common
- Batching
- Weighing ingredients
- Nutrition management
- Price computing
- Shipping and receiving
- Point-of-sale weighing
- Weight estimating

SCALE TERMINOLOGY

Calibration – setting or correcting the scale
Capacity – The maximum weight measureable by the scale on its platform.
Divisions – defines the amount of scale increments; *d* is the symbol for the minimum division that can be indicated or recorded.
Drift – when outside influences, such as ambient temperatures, impact the scale's performance, the weight number can shift continuously
Resolution – the smallest fraction of a unit of measurement that a scale can detect in the quantity that it is measuring. The smallest difference in mass that can be displayed on a scale (commonly signified as *d*) also called readability, divisions or increments.
Stabilization Period – the time required to display a stable weight value depending on the scale's environment, software filters, etc.
Strain Gauge Load Cell – converts the applied weight or force into an electrical signal.
Tare – resets the scale display to zero in order to measure only the weight of an item. It is frequently used to subtract the weight of containers.
Tolerance – amount of error allowed in a scale's weight value

CARE AND USE

- Be sure to check if your scale is submersible or not before exposing to water. (SD1110X & SD2210X are submersible.)
- Wipe clean with a damp cloth.
- Store the scale at room temperature between 32 to 104°F/0 to 40°C.
- Scales are precision instructions and must be handled with extreme care.
- Battery technology works best at room temperature.
- Place the scale gently on a hard and flat surface and make sure it is steady before use.

- Do not place overweight items on the scale.
- Store the scale in a position that keeps it free from any load bearing weight. (The SD1102, SD1502 and SD1106 store well vertically like a book.) Storing the scale with pressure on the load cells can distort the weight measurements over time.
- Hold the scale from the bottom when moving.

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UNIT COMPARISON

model	capacity	lb	lb:oz	oz	lb:/ oz	/ oz	fl oz	g	ml	ozt	tlh	tlt	gn	dwt	mo	tol	ct
Basic Scales Series																	
SD1104	11 lb/5 kg/176 oz/5 L				0 lb:0.1 oz		0.1 fl oz	1 g	1 ml								
Glass Scales Series																	
SD1102	11 lb/5 kg/176 oz /5 L	0.001 lb		0.1 oz				1 g	1 ml								
SD1502	15 lb/7 kg			0.1 oz				1 g									
Precision Scales Series																	
SD750	1.65 lb/750 g			0.01 oz				0.1 g		0.01 ozt			1 gn	0.1 dwt			1 ct
SD0202	2.2 lb/1 kg			0.01 oz				0.2 g									
Specialty Scales Series																	
SD1106	11 lb/5 kg/176 oz/5 L			0.1 oz			0.1 fl oz	1 g	1 ml								
Master Scales Series																	
SD0502	5 lb/2.27 kg			0.1 oz				1 g									
SD1114	11 lb/5 kg			0.1 oz				1 g									
SD1112	11 lb/5 kg			0.1 oz				1 g									
SD2202	22 lb/10 kg			0.1 oz				1 g									
SD3302	33 lb/15 kg			0.2 oz				5 g									
SD5502	55 lb/25 kg			0.2 oz				5 g									
Submersible Scales Series																	
SD1110X	11 lb/5 kg/176 oz	0.005 lb	0 lb:0.1 oz	0.05 oz	0 lb:1/8 oz	1/8 oz		1 g									
SD2210X	22 lb/10 kg/352 oz	0.005 lb	0 lb:0.1 oz	0.05 oz	0 lb:1/8 oz	1/8 oz		1 g									
Receiving Scales Series																	
SDR220	220 lb/100 kg			2 oz				50 g									
SM13201	132 lb/60 kg			8 oz				200 g									

When selling against the competition, use this chart to compare the resolution in the appropriate unit to the competition's resolution of that unit.
For example, if a chef needs to measure portions at 1.25 oz, you can recommend the SD1110X or SD2210X because it measures at a resolution of 0.05 oz for a larger cpacity. If a chef needs to measure in 1 g increments, there are many more scales to choose from.