# Commercial Steaming Guide

***Why should I use a steamer?***

When water is converted to steam, a great deal of energy is absorbed. Subsequently, when steam condenses onto an item, the stored energy is released. Because of this, steam at 212 degrees is more efficient at heating an object than a conventional oven at the same temperature. Where the conventional oven is simply heating the space that the food occupies, the steam actually releases heat directly onto the product, greatly reducing the cooking time.

Steaming also decreases the amount of nutrients lost during the cooking process, as well as reducing the amount that the product shrinks during cooking. Therefore, steaming food produces not only healthier product, but more of it as well. Combined, steaming provides an increase in revenue over conventional means of cooking.

Finally, items that are steamed retain their color much better than those that are boiled.

There are two types of commercial steamers:

### Pressure Steamers

Pressure steamers work by sealing off sealing off the main chamber from air, and increasing the pressure to about 15 psi, or 1 bar (or in other words, double the air pressure normally at sea level). Doing so increases the boiling temperature of water from 212 degrees to around 257 degrees. This greatly decreases the cooking time of any item, while using less fuel. The downside of pressure steamers is that their compartments cannot be opened during operation. Due to this fact, pressure steamers are more suited to large scale venues with a consistent time schedule for their steaming.

*Pressure Steamers\*LINK\**

### Pressure-less Steamers

Regular steamers work with just steam, have larger compartments than pressure steamers, and the compartments can be opened during steaming. Steamers are more ideally suited for restaurants with more varied and random steaming needs.

*Pressure-less Steamers\*LINK\**

**A Note About Water Quality**

The most important factor to keep in mind when buying a steamer is quality of water. If the water you are using is of poor quality, it will effect the taste of your food. Therefore, it is vitally important to check the solvent levels in the water before buying a steamer. Additionally, a proper filtration system can make all the difference for your operation.

*Proper Solvent Levels:*

Total Dissolved Solids                         No More Than 60 Parts Per Million (PPM)

Total Alkalinity                                  Less Than 20 PPM

Silica                                           Less Than 13 PPM

Chlorine                                           Less Than 1.5 PPM

pH Balance                                       Between 7.0 and 8.5

**A Note About Number of Compartments**

When buying a steamer, it is important to keep in mind that different applications require different numbers of compartments. Refer to the chart below for recommendations, or call one of our equipment specialists for more help.

**Steaming Hints and Tips**

* Make sure your drain is no more than 6 feet from your steamer
* Steamers always need to be pre-heated
* Frozen items should be broken up before steaming
* When steaming items in perforated pans (preferable to solid pans), use solid catch pans to make clean up easier
* Season product after steaming, not before
* Product of a similar size cooks similarly

### Connection Type

Once you choose the steamer that fits best, you must decide what power source you will be using. Depending on your building, you may have between two and five options for your steamer's power options.

**Direct Steam** - Less commonly, some buildings have access to direct steam. If the water is certified as clean and usable on food, then this is the most affordable and easiest option. If the water is not certified, however, the machine's warranty will most likely be voided, and there may be complications with the health department.

**Steam Coil** - If the building has direct steam, but the water is not certified, then steam coils are the best option. Steam coils utilize the direct steam from the building to heat tap water in a coil, creating steam efficiently and inexpensively.

**Gas** - Readily available and affordable, if direct steam is not available, then gas will likely be the best option. Don't forget to purchase a gas connection kit with your steamer, available here\*LINK\*

**Electric** - If there are no other options, electric models work just as well as their counterparts. However, electricity tends to be the most expensive energy source.

**"Connectionless" Steam** - Some models are listed as "connectionless", however this is a misnomer. Connectionless machines refer to the fact that they use a water reservoir to create the steam, which must be drained after use. Connectionless models still require a gas or electric connection for power. Counter top steamers are generally listed as "connectionless".

### Boiler or Boiler-less?

After picking the best connection type, you must decide between boiler and boiler-less models.