

FSTC STEAM KETTLES

TARGETED FOR HIGH VOLUME OPERATIONS...

GREEN THUMB QUICK TIPS:

- Lower the lid on the steam kettle while you're simmering: cut energy use by up to 50%.
- The biggest possible savings is to identify long idle periods and turn the appliance down, or off altogether.



STEAM KETTLES 101:

Steam kettles are an improved, self-contained version of the large stockpot used for range top cooking.

The steam jacket surrounding the vessel provides a more even distribution of heat than a typical range, and the tilting mechanism adds to ease of use for preparing large quantities of sauces, stocks and stews. Compared to the range top steam kettles offer a huge increase in productivity, convenience and energy efficiency.

Steam kettles often have a hinged lid, and the operator can choose from automatic filling and mixing attachments. Trunnion mounting or a dairy-style valve allows for quick unloading and cleaning. Steam kettle capacity ranges from one quart to 200 gallons. They are enclosed by an outer wall, or jacket, containing raw steam. This steam jacket typically extends from the bottom of the kettle to between half and two-thirds of the distance to the rim. The circulation of steam inside the jacket provides even heating to the contents of the kettle. The pressure of the steam, which may be from one to 50 psig, determines the maximum temperature of the kettle.

Your steam kettle may have a rating of 30,000-125,000 Btu/hour or 6kW-36kW, but in normal operation it probably uses half that much energy as it cycles on and off to maintain a constant temperature.

Kettles are typically turned on and off with each use, and thus don't "stand by" as other appliances do. One exception is when a kettle is used for continuous production such as steaming, boiling bagels, or as a hot-water bath for cook-chill operations. In these situations a steam kettle may spend a large portion of its operating time standing by, holding water at a simmer or a boil. In general, energy use when simmering or boiling water can be reduced dramatically (i.e. up to 50%) by using a lid on the kettle.

The FSTC has tested various steam kettles and has reports available on several models. You can get a customized look at what appliance energy is costing you in your operation by contacting your PG&E Marketing Representative. If you want to look at actual performance figures from our laboratory trials or our Production Test Kitchen monitoring, check out the list of published Reports for a title that matches your interests, or browse through the Abstracts for a more detailed summary