Induction Cooktops

Induction technology enhances the cooking experience through better performance and increased health and safety.

HOW INDUCTION WORKS

Induction cooking technology uses an electromagnetic field, created by passing electricity through a coil below the surface of the cooktop. The magnetic field strikes the iron molecules in your cookware, producing heat. Induction eliminates the intermediate step of heating up a burner and then transferring that heat to the cookware, so it is faster and more efficient than cooking with a gas or standard electric stove. Induction only heats the cookware and not the surrounding burner area, making it safer and eliminating waste heat. Restaurants and home cooks are falling in love with induction because it cooks faster and responds quickly when the temperature is reduced, providing unmatched precision and control over the cooking experience.

HIGHLIGHTS

- Induction heats up a pot of water nearly twice as fast as gas or a standard electric stove.
- More energy efficient than traditional electric cooktops, which can save you money on your electric bill.
- Induction cooktops are safer because there is no exposed heating element or open flame and the cooktop does not heat up unless there is a cookware on it, even if it's turned on.
- Natural gas stoves can release carbon monoxide, formaldehyde and other harmful pollutants into the air. Induction cooktops produce zero kitchen pollution.
- With its smooth surface, cleaning up is easy!
- Precise, digital controls give you the exact heat you want.
- Your kitchen stays cooler and less heat is wasted, since the cooktop's heat is focused solely on the pan.

For questions about this program, visit SiliconValleyPower.com/Electrification

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Health & Safety

Induction cooking is healthier for you and your family. According to the International Journal of Epidemiology, children living in homes with gas stoves are 42% more likely to experience asthma.

Induction cooktops eliminate the indoor air pollution that gas stoves release into your home, including nitrogen oxide, formaldehyde and carbon monoxide. Eliminating an open flame by switching from gas to electric reduces the risk of fire and also means no combustion fumes and no harmful gasses like carbon monoxide. This means there is less need for venting and eliminates the risk of carbon monoxide poisoning from a gas stove. On average, we spend about 90% of our time indoors, where pollutant levels are often higher than those outside. Indoor pollution is estimated to cause hundreds of thousands of respiratory health problems each year.

Converting to electric appliances not only improves your indoor air quality, but it also provides increased safety in your home. Induction cooktops only heat steel or iron cookware, which allows the ceramic cooktop to quickly return to a safe temperature as soon as the cookware is removed. An induction element stops heating when a pan is removed, which reduces risk of burns or fire if an element is accidentally left on.

Precision and Performance

Induction cooktops have precise temperature controls that respond faster than gas or standard electric cooktops. When you raise the temperature, it will quickly heat up. When you lower the temperature, it will quickly cool down. Induction can also deliver the very low, even heat required to make some sauces and confections. This technology also outperforms gas and standard electric stovetops by heating twice as fast. You can bring a pot of water to a boil in less than half the time as gas, saving you time in the kitchen preparing meals.

Cooler Kitchen

Induction cooktops heat up efficiently. About 80 to 90% of the energy goes directly into the cookware and only 10 to 20% is wasted heat that goes into your kitchen. This is a great added benefit during the heat of the summer, and can reduce your air conditioning load. For comparison, electric resistance is 70 to 80% efficient with 20 to 30% of the energy wasted as heat into your kitchen. Gas is only 30 to 40% efficient with 60 to 70% of the energy wasted as heat into your kitchen.

Cookware

Not all cookware works with induction cooktops, so you may need to invest in some new pots and pans. Use ferrous (magnetic) cookware, such as cast iron, enameled iron, stainless steel or blue or black carbon steel. When in doubt, use the magnet test! If it sticks to the bottom of your pans, they'll work with induction cooktops. Note: Some stainless steel pans don't contain iron and aren't compatible with induction, so it's best to check. Make sure the cookware you use is smooth and flat-bottomed, to ensure good contact and even heating.

HELPFUL GUIDELINES

- Clean up spills right away. Food is less likely to bake onto an induction cooktop, but it's best to clean as you go to keep the surface in its best shape.
- Don't slide or bang pots on the glass surface or use abrasive cleaners. The surface is tough, but can crack and scratch, just like electric ceramic cooktops.
- Don't place magnetic items like foil or metal cooking tools on the cooktop.
- Don't use the cooktop as a chopping block. A flat induction cooktop can double as kitchen workspace, but use care to protect it to prolong the life of your appliance.
- Don't assume the cooktop is completely cool. It will get hot from the cookware but the heat dissipates quickly. Most cooktops have a warning light that indicates when it's safe to touch the cooktop.